## *Developing International Mindedness through the Arts in the International Baccalaureate (IB) Diploma Programme (DP): An International Survey Design Conducted across all Continents*

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# Developing International Mindedness through the Arts in the International Baccalaureate (IB) Diploma Programme (DP): An International Survey Design Conducted across all Continents

*by*

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## Abstract

**Developing International Mindedness through the Arts in the**

**International Baccalaureate (IB) Diploma Programme (DP): An International Survey**

**Design Conducted across all Continents**

Christina Collazo

One distinct purpose of international education is to develop greater international understanding and intercultural competences. For the International Baccalaureate, this translates into students developing international mindedness throughout its programmes and courses. However, international mindedness is not measured and the impact of the programmes on the development of international mindedness remains mainly anecdotal. Furthermore, in the Diploma Programme, the choice of Arts courses is optional and the value of an Arts education, or specifically the value of taking a Diploma Programme Arts course in developing international mindedness, is equally unclear. This study investigated the development of international mindedness in students who opted for a Diploma Programme Arts course versus those who did not. The study followed a repeated measures, comparative and mixed-methods research design using a survey tool for data collection. The survey consisted of a quantitative section based on existing surveys and a qualitative section with six open-ended questions. The quantitative data showed an increase in intercultural knowledge and behaviours, while no change in attitudes, and a decrease in values was identified for both student groups, Diploma Programme Arts and Non-Arts-students. Furthermore, there was an increase in intercultural communication skills particularly in Diploma Programme Arts-students. Qualitative data analysis revealed a spectrum of categories of responses. The qualitative data also identified themes in addition to those identified in International Baccalaureate documentation and literature. Recommendations include for the International Baccalaureate Organization to integrate some of the emerging themes in their documentations, for example themes relating to adaptability and interconnectedness, which may also provide an interesting focus for curriculum design. Furthermore, curriculum and programme design should place a greater focus on the development of attitudes and values in the Diploma Programme and a reconsideration of the optionality of the Arts in this context.

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# Abbreviations

| Abbreviation | Meaning |
| --- | --- |
| ANCOVA | One-way between-groups Analysis of Covariance |
| BERA | British Educational Research Association |
| BMBF | Bundesministerium für Bildung und Forschung (Federal Ministry of Education and Research), a German government agency |
| BSA | British Sociological Association |
| CAS | Creativity, Activity, Service (an IBDP core requirement) |
| CFA | Confirmatory Factor Analysis |
| CP | Career-related Programme (IB) |
| CQ | Cultural Intelligence |
| CQS | Cultural Intelligence Scale |
| DACA | Deferred Action for Childhood Arrivals (an US immigration policy) |
| DfES | Department for Education and Skills, a former UK government agency (until 2007) (DfES, 2016) |
| DP | Diploma Programme (IB) |
| EE | Extended Essay |
| GPI | Global Perspective Inventory |
| GCS | Global Citizenship Scale |
| HL | Higher Level |
| IB | International Baccalaureate (Organization) |
| IBA | IB region: Americas |
| IBAEM | IB region: Africa, Europe, Middle East |
| IBAP | IB region: Asia Pacific |
| IE | International Education |
| IM | International Mindedness |
| IMS | International Mindedness Scale |
| KMO | Kaiser-Meyer-Olkin Measure |
| LP | Learner Profile |
| LPA | Learner Profile Attributes |

| | |
|---|---|
| MUN | Model United Nations |
| MYP | Middle Years Programme (IB) |
| N | Number of responses |
| OECD | Organisation for Economic Co-operation and Development |
| Oxfam | Oxford Committee for Famine Relief |
| PCA | Principal Component Analysis |
| PISA | Programme for International Student Assessment |
| PYP | Primary Years Programme (IB) |
| SEE | Scale of Ethnocultural Empathy |
| SL | Standard Level |
| SPANOVA | Split-plot Analysis of Variance (Tabachnick & Fidell, 2013) or Mixed between-within Subjects Analysis of Variance (Pallant, 2013) |
| STEM | Subjects from the Sciences, Technology, Engineering, and Maths |
| STEAM | Subject from the Sciences, Technology, Engineering, Arts, and Maths |
| TOK | Theory of Knowledge |
| UN | United Nations |
| UNESCO | United Nations Educational, Scientific and Cultural Organization |

# Glossary

Some of the abbreviations and terms in this thesis may have multiple meanings, depending on their use and context. For the purpose of this thesis, the terms and abbreviations below are defined as follows:

| Term | Definition |
|------|-----------|
| CAS | Creativity, Activity, Service (an IBDP core requirement) |
| | An IBDP core requirements which involves students' extra-curricular engagement within the three strands related to *creativity* (creative or arts-related activities), *activity* (sports, physical and health related activities), and *service* (volunteer-work) (IB, 2022e). |
| CP | Career-related Programme (IB) |
| | An IB programme for students aged 16-19 which prepares students for tertiary education or vocational routes (IB, n.d.-b). |
| CQS | Cultural Intelligence Scale |
| | *Cultural intelligence* encompasses the aptitude of a person to interact successfully and to be adaptable in cross-cultural situations. *Cultural intelligence* further demonstrates a capacity to approach life and relations competently and efficiently, and to be able to build effective connections with others (Van Dyne et al., 2015). The *Cultural Intelligence Scale* (CQS) measures four dimensions or domains, including a cognitive domain (intercultural knowledge and understanding), a metacognitive domain (critical inquiry, thinking and reflection to access intercultural knowledge), a motivational domain (ability to maintain momentum throughout cross-cultural situations and interactions), and a behavioural domain (adaptability in or to cross-cultural situations) (Ang et al., 2003; Ang et al., 2015; Earley & Ang, 2003; Van Dyne et al., 2015). |
| DACA | Deferred Action for Childhood Arrivals (an US immigration policy) |
| | This policy applies to people living in the United States who arrived there (illegally) as minors (Boundless, 2022). |

DP          Diploma Programme

An IB programme for students ages 16-19 through which students gain a university entrance diploma at the end of the two-year studies (IB, 2022d).

EE          Extended Essay (an IBDP core requirement)

The Extended Essay is an autonomous research essay of 4000 words which is one of three required elements of the IBDP core (IB, 2022e).

GPI         Global Perspective Inventory

The GPI measures the three domains *cognitive*, *interpersonal*, and *intrapersonal* development. Each of these constructs is broken down into the same two conceptual angles, namely *intercultural maturity* - also called *cultural development* - and *intercultural communication* (Merrill et al., 2012). Consequently, the GPI consist of three scales with two sub-scales each: the *cognitive domain* (subdimensions: *knowledge* and *knowing*), the *intrapersonal domain* (subdimensions: *identity* and *affect*), and the *interpersonal domain* (subdimensions: *social responsibility* and *social interactions*) (Merrill et al., 2012).

GCS         Global Citizenship Scale

The GCS was developed to measure the dimensions and categories of the complex construct of *global citizenship* (GC) which is closely related to international mindedness and notions of global engagement. GC includes three dimensions, each with three sub-dimensions, which include *social responsibility* (subdimensions: *global interconnectedness and personal responsibility, global justice and disparities,* and *altruism and empathy*), *global competence* (subdimensions: *global knowledge, self-awareness,* and *intercultural communication*), and *global civic engagement* (subdimensions: *involvement in civic organisations, political voice,* and *global civic activism*) (Morais & Ogden, 2011).

HL          Higher level courses in the Diploma Programme

In the Diploma Programme, subjects can be studied at either higher level or standard level. A higher level course requires about 240 hours of teaching (IB, 2022e).

IB          International Baccalaureate (Organization)

With the aim to offer education for a better world (IB, 2022a), the IB offers four programmes, including the Primary Years Programme (PYP) for students aged 3-12, the Middle Years Programme (MYP) for students aged 11-16, and the Career-related Programme (CP) as well as the Diploma Programme (DP) both for students aged 16-19 (IB, n.d.-a).

IBA         IB region: Americas

This IB region refers to IB offices, schools, educators, workshops, conferences, etc. located in North and South America.

IBAEM       IB region: Africa, Europe, Middle East

This IB region refers to IB offices, schools, educators, workshops, conferences, etc. located in Africa, Europe and the Middle East.

IBAP        IB region: Asia Pacific

This IB region refers to IB offices, schools, educators, workshops, conferences, etc. located in Asia Pacific.

IE          International education

International education comprises two discrete areas of interest, namely education in international contexts (e.g. internationalisation of education), and education for international development. As discussed in chapter 2, the development of international education, the history of the International Baccalaureate and the evolution of the construct of international mindedness are closely connected and related (Hill, 2012, 2015; Tarc, 2016; Sylvester, 2007).

IM          International Mindedness

A foundational concept of an IB education (IB, 2022a) which, according to the IB, comprises international understanding, multilingualism and global engagement as well as ten learner profile attributes (LPAs) which also contribute to the development of IM (Hill, 2007; IB, 2019a; Poole, 2017).

IMS              International Mindedness Scale

The survey which was used for quantitative data collection in this study. This survey is based on existing and tested survey tools with the permission of the authors. The surveys included the Global Perspective Inventory (GPI) (Merrill et al., 2012), the Global Citizenship Scale (GCS) (Morais & Ogden, 2011), the Cultural Intelligence Scale (CQS) (Ang et al., 2007), and the Scale of Ethnocultural Empathy (SEE) (Wang et al., 2003).

LP                 Learner Profile

The IB Learner Profile is a collection of ten attributes which characterise an internationally minded learner (IB, 2019a).

LPA              Learner Profile Attributes

The ten learner profile attributes include: knowledgeable, inquirer, thinker, reflective, open-minded, communicator, caring, principled, balanced, and risk-taker (IB, 2019a). For an overview of these ten attributes and their definitions, please refer to Appendix 1.

MUN           Model United Nations

The Model United Nations are a programme for students to encounter and experience in real-life the UN's way of working (UN, n.d.-a).

MYP            Middle Years Programme (IB)

A five-year IB programme for students aged 11-16, which prepares students for the IBDP or the IBCP (IB, n.d.-c).

Private schools    Fee-paying schools, including fully private and/or semi-private schools.

PYP             Primary Years Programme (IB)

An IB programme for students aged 3-12 (IB, n.d.-a)

SEE             Scale of Ethnocultural Empathy

The Scale of Ethnocultural Empathy (SEE) was developed to measure peoples' interpersonal empathy in intercultural settings by focussing on actions, behaviours and relations in cross-cultural situations. The SEE captures four dimensions within cross-cultural interactions, namely *empathic feeling and expression*, *empathic perspective taking*, *acceptance of cultural differences*, and *empathic awareness* (Wang et al., 2003).

SL          Standard level courses in the Diploma Programme

            In the Diploma Programme, subjects can be studied at either higher level
            or standard level. A standard level course requires about 150 hours of
            teaching (IB, 2022e).

TOK         Theory of knowledge (an IBDP core requirement)

            Theory of knowledge is a course about the nature of knowledge and the
            philosophy of knowing. This course is one of three required elements of the
            IBDP core (IB, 2022e).

## Declaration of originality and statement of copyright

I declare that this thesis is my own work. No material contained in this thesis has previously been submitted for a degree in this or any other institution.

The copyright of this thesis rests with the author. No quotation from it should be published without the author's prior written consent and information derived from it should be acknowledged.

*To my beloved husband, Manuel,*

*the kindest and most generous soul I have ever met.*


*And to our son, Manuel Lucas,*

*who just knows how to bring light and joy into every moment.*


*You are my inspiration and my strong support.*

# Acknowledgements

Everything worth pursuing in life requires a journey and journeys are notorious for their highs and lows, joys and challenges, times of soaring and stretches of slow progress. Regardless of the territory or the season, no journey is possible without other people. In the same way, this study was a journey that would not have been possible without the support and encouragement of the people around me. While it is not possible to name everyone, I would like to thank some of those people, who have been closest to me and to my study. Especially, I would like to thank my supervisor, Dr. Dimitra Kokotsaki, for her continued and unfaltering support throughout these past years. It is difficult to imagine that anyone could be more positive and constructive. However, I feel that the greatest and most precious gift that Dimitra has given me is the confidence in my own work. Dimitra's way of guiding, directing, questioning, and mentoring has been full of trust and respect towards me as a person and as a professional. It is through her belief that I found my own voice, and this has possibly been one of my most important discoveries in this PhD journey.

In this context I would also like to thank my family who has supported me in so many ways. The most important pillar of support has been my wonderful husband, Manuel Collazo-Ayala, who has provided encouragement, stability, and space in our life to allow for such deep and ongoing additional engagement over the years. It is also important to mention our small son, Manuel Lucas, who has so passionately annotated all of my readings, provided many cups of imaginary coffee to keep me going, and cheered me up with his joyful ways, helping me to never lose sight of what is important. I love you both with all my heart! Furthermore, I thank my lovely parents, Dr. Wolfgang und Dr. Silvia Haaf, for their ongoing and practical support in all areas of life. I am grateful for your endless love, passion, and care. Likewise, my sister, Dr. Susanne Haaf-Dumont, has been a great sounding board, and I cherish the conversations which sparked ideas and directions in my thinking which are meaningful to my work in and with the Arts beyond the scope of this study. I would also like to mention the practical support that she and her husband, Stefan Dumont, have offered throughout and especially in the final stages towards the completion of this thesis. Finally, I am grateful for my mom-in-law, Ruth Ayala-Reyes, and my sister-in-law, Corali Collazo-Ayala, who have been so encouraging, patient, and understanding when I had to continue working during vacations, when we were not able to visit each other as often or spend as much time as we needed

to, so that I could focus on this study. I really appreciate your support and we will see you very soon!

No journey would be enjoyable without good friends, and I thank my dear friends for bearing with me in the months of silence, the unanswered messages, or the forgotten birthdays. I appreciate you for understanding and still being there for me on the other side. Of course, the years were not entirely spent in silence and so I would like to particularly thank my dear friends Dr. Sumaya Alyusuf, Mike Bindon, Elouise Smith and Netta Tiippana who have taken a particular interest in this specific journey. Thank you for joining me in many critical conversations, for listening to my doubts and ideas, for sparking my curiosity, and for always pointing out another perspective. You are wonderful travel partners!

Finally, this study would not have been possible without the IB schools and teachers who committed to supporting this research, nor without the students who graciously offered their participation and completed the questionnaires despite a heavy DP workload. Thank you for sharing your time and your thoughts so generously! In this context, I would also like to thank the IB for being supportive of life-long learning and ongoing professional development, such as this study. Furthermore, I thank all the inspiring and critical IB colleagues who have challenged me to think further and deeper throughout this time.

At this moment, this journey has reached a type of summit, and in such moments, it is good to pause, take some time and enjoy the view. Nevertheless, the journey will continue, and I look forward to the acquaintances I will make and to sharing new experiences with the people that walk alongside me.

# Chapter 1: Introduction

In an increasingly globalising world and economy as well as with the growing diversification of societies, there is a distinct need for better understanding and cooperation between people from diverse cultures, backgrounds and nations in order to thrive and live together more harmoniously. The need for intercultural competences has become a necessity for everyone, even for those who never travel abroad (Varhegyi & Nann, 2009). Furthermore, working towards a more peaceful, equitable and sustainable world is the ideological and philanthropic aim of many individuals, international organisations, projects, and education initiatives today. Nevertheless, global problems such as ongoing environmental disasters, devastating conflicts, genocide, and wars along with a global pandemic, health crises, large-scale poverty, the rise of world-hunger, the uneven distribution of (natural) resources, the unequitable access to education, a surge in nationalism, to name but a few, remain ongoing concerns. The funds spent on wars and conflicts are significantly exceeding the resources invested into peace keeping while the approaches to conflict resolution continue to prove ineffective (UN Secretary General, 2017). This status raises questions and concerns regarding the world-community's capacity to step up to the responsibilities associated with the shared stewardship of this planet, along with the necessary capabilities to effectively and collaboratively solve pressing environmental, political, socio-economic and other global issues.

On the backdrop of these real-world issues, which have prompted the thinking, reflections, and questions as the basis for this study, this chapter introduces the research problem which this study aims to investigate along with the approach taken to answer the research questions. This will be followed by a brief excurse into the background of this work in relation to two considerations, namely the development of international mindedness (IM) through an international education (IE) as provided by the International Baccalaureate (IB) and considerations of the role of the Arts in developing internationally minded people. This will be followed by a statement of positionality and reflexivity by the researcher and an overview of the structure of this study.

## Research Problem

In response to the concerns mentioned above, the IB promotes a construct called '*international mindedness*' (IM through its four educational programmes for students between the ages of 3 to

19[1] (IB, n.d.-a) in order to raise students to be responsible global citizens who will help to promote a more just, peaceful and sustainable world (Hill, 2010, 2015; Tarc, 2018). However, IM has been described as a complex and non-specific construct (Cause, 2011; Gunesch, 2007; Haywood, 2007; Tarc, 2018). The implementation and development of IM and the interpretation of dimensions and characteristics associated with IM, such as the attributes of the IB learner profile[2] (LP), are left largely to the IB community, including school leadership, teachers, students, etc. and vary widely (Hacking et al., 2018; Hawley, 2017; Haywood, 2007; Hill, 2015; Savage, 2017; Savva & Stanfield, 2018; Tarc, 2018). Furthermore, in the light of the many global issues, the educational value of the Arts towards promoting intercultural competences and cross-cultural collaboration is gaining increasing attention and interest (e.g. Gonçalves, 2016; O'Farrell, 2014; Putz-Plecko, 2008; Winner et al., 2013). However, studies relating to the impact of an IB Arts education on the development of IM are limited.

In this context, this study aims to investigate if, through an IE as offered by the IB's Diploma Programme (DP), IM is developed in students aged 16-19. Specifically, the study seeks to investigate if participation in a DP Arts course contributes to the development of IM. In other words, the objective of the study is to identify if, within the context of the IB, there is a difference in the development of IM in students who opted for one of the DP Arts courses (i.e. DP Arts-students) versus those students who did not (i.e. DP Non-Arts-students) over the course of the DP. The study seeks to answer the following research questions:

1. Is there a difference in IM in students taking the DP at an early point of the programme versus the endpoint of the programme?

2. Is there a difference in the development of IM between DP Arts-students and DP Non-Arts-students?

3. To what extent does students' understanding of the IB learner profile attributes (LPAs[3]) correlate with the IB's definition of these attributes?

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[1] The IB offers four programmes, including the Primary Years Programme (PYP) for students aged 3-12, the Middle Years Programme (MYP) for students aged 11-16, and the Career-related Programme (CP) as well as the Diploma Programme (DP) both for students aged 16-19 (IB, n.d.-a).

[2] The IB Learner Profile is a collection of ten attributes (LPAs) which characterise an internationally minded learner.

[3] The ten IBLPAs include *knowledgeable, inquirer, thinker, reflective, open-minded, communicator, caring, principled, balanced,* and *risk-taker* (IB, 2019a: 3-4). For an overview of these ten attributes and their definitions, please refer to Appendix 1.

The study follows a comparative research design with a mixed-methods approach using a survey for data collection that is rooted in the conceptualisation of IM. To answer the research questions, the study uses a longitudinal approach with two data collection points, one at the beginning of students' DP studies and one towards the end of students' DP studies to compare responses of the two student groups. The study includes students from IBDP schools that offer DP Arts courses from all IB global regions, including IBA (Americas), IBAEM (Africa, Europe and Middle East), and IBAP (Asia Pacific). As a research tool, a survey is used which consists of a quantitative section, a qualitative section with open-ended questions and a demographic section. The quantitative section of the survey is based on existing and tested survey tools with the permission of the authors. The surveys included the Global Perspective Inventory (GPI) (Merrill et al., 2012), the Global Citizenship Scale (GCS) (Morais & Ogden, 2011), the Cultural Intelligence Scale (CQS) (Ang et al., 2007; Van Dyne et al., 2015), and the Scale of Ethnocultural Empathy (SEE) (Wang et al., 2003). The qualitative questions are based on the conceptualisation of IM.

## Background of the Study

### International Mindedness as an Educational Aim between Vision and Reality

Ideologically, the IB aims to develop greater intercultural competence along with intercultural understanding and open-mindedness, the capacities for addressing global problems and the willingness to act in the light of the world's most pressing concerns and to create a fairer and more peaceful world as a result. In fulfilling its mission, the IB considers IM at the heart of all programmes and courses and with this, IM is a fundamental principle to the IB's educational philosophy (IB, 2022a). Key components of IM include intercultural understanding, multilingualism and global engagement, along with ten attributes as represented in the IBLPAs which contribute to the development of an internationally minded person (Hill, 2007; IB, 2019a; Poole, 2017). An approach of using IE to educate young minds towards a more effective crisis-management appears to be a logical intervention to some of the pressing global issues of our days. However, IE is not without criticism, including its background and history which are just as deeply rooted in economic and national interests as the aforementioned problems, its ongoing Western centrism and notions of elitism, and its reinforcement of the marginalisation of already

underprivileged populations. The IB is no exception to this predicament as the literature review of this study in chapter two demonstrates.

It is important to note that IM as an educational outcome is not measured or assessed by the IB and that the impact of programmes or courses on the development of IM remains mainly anecdotal. Also, quantitative studies drawing on validated research instruments and diverse research methodologies to identify the impact of IB programmes, along with studies on how IM is developed through an IB education have been rare (Cause, 2011; Dickson et al., 2018), particularly at the time this study commenced and during the research development phase. Only recently have studies become available that have investigated the development of IM in IBDP students. For example, a quantitative study by Gándara (2021) found that students who took the IBDP in 6 countries[4] showed a significantly greater development of global mindedness than their Non-IBDP peers in those countries, and that students in five[5] of these six countries demonstrated higher levels of IM in the second year of the DP compared to students in the first year of the DP (Gándara et al., 2021). In contrast, a recent comparative study by Metli et al. (2019) conducted in one national and one international IB school[6] in Turkey showed no significant development of IM in IB students over the course of the DP. The researchers concluded that a diverse student population or the offer of IB Programmes alone do not necessarily lead to the development of IM in students (Belal, 2017; Metli et al., 2019). School culture and context (Haywood, 2007; Hacking et al., 2018; Metli et al., 2019), school leadership (Hacking et al., 2018; Tarc, 2018) and the training, mind-set and attitudes of the teaching body (Hacking et al. 2018; Poole, 2017; Ryan et al., 2018; Tocci et al., 2021) along with meaningful curriculum planning and implementation (Hacking et al., 2018; Hill, 2007; Metli et al., 2019; Skelton, 2007) have been found to be important elements in the development of IM. Nevertheless, the implementation and realistically also the interpretation of IM is mainly left to schools and individual teachers (Cause, 2011; Haywood, 2007; Lai et al., 2014; Poole, 2017; Skelton, 2007; Tarc, 2018; Walker, 2010). When it comes to the DP, in some subjects the focus on academic performance and exam pressure may lead teachers (and students) to revert to traditional teaching (and learning) methods, leaving philosophical considerations and IM (and

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[4] The countries included Australia, Germany, Japan, Mexico, Spain, USA (Gándara et al., 2021).
[5] The countries included Australia, Germany, Mexico, Spain, USA, but not Japan (Gándara et al., 2021).
[6] The schools were continuum schools, meaning that they offered the PYP, MYP and DP, and were IB schools for over ten years (Metli et al., 2019).

associated constructs) by the wayside (Lai et al., 2014; Parish, 2021) raising questions about how reliably IM is indeed developed in students throughout the DP in schools with diverse contexts and teachers from various backgrounds.

## Arts Education as a Potential Catalyst for Developing International Mindedness?

More than ever before there is a need for effective Arts and cultural education programmes, in order to foster respect, understanding, dialogue and tolerance in future generations as the basis for sustainable development, innovation and peaceful co-existence (Putz-Plecko, 2008). The Council of Europe articulated the strong relationship between culture and democracy along with the importance of culture for democracy (Anheier et al., 2015). UNESCO "*recognized the importance of cultural heritage for peace and security*" and that "*culture can also serve as a soft power tool to promote reciprocal knowledge and dialogue between nations […]*" (UN Secretary General, 2017: 3). A further initiative to survey Arts and culture education in and outside school was recently launched by UNESCO. In this context the importance of Arts and culture in developing and nurturing "*abilities, skills and competences*", "*creativity, critical-thinking, and multiple intelligences*" and "*imagination and innovation*" for the benefit of effective collaboration and operation in increasingly diverse and multicultural societies and in an ever-changing world were highlighted. Furthermore, the importance of education in the Arts and culture was identified as a catalyst in achieving the UN's *Sustainable Development Goals* (SDGs) and in benefitting the *Cultural and Creative Industries* (CCIs) which in turn greatly and positively impact the global economy (UNESCO, 2021a). A report of recommendations by the Parliamentary Assembly to the Council of Europe further connects cultural education with education in and through the Arts:

> *"Cultural education, which is learning and practising the arts, as well as learning through the arts using transversal pedagogical means, should also be understood as using the arts for the promotion of cultural and social objectives, in particular mutual respect, understanding and tolerance vis-à-vis others, appreciation of diversity, team work and other social skills, as well as creativity, personal development and the ability to innovate. Cultural education can help to create synergies beyond cultural diversity through positive and constructive dialogue"* (Parliamentary Assembly, 2009: 1).

The value of an Arts education in its own right as part of our humanity and cultural heritage was stressed by Winner et al. (2013). Sir Ken Robinson points to the transformative powers of the Arts in relation to "*social, economic and cultural challenges*" in the world (Robinson, 2015: xvi). On the basis of this advocacy, the Arts not just offer opportunities but carry a fundamental

responsibility to foster intercultural understanding, cross-cultural communication and cooperation, to enhance the fruitful exchange and distribution of thoughts and experiences, and to develop peaceful co-existence between diverse people (Gonçalves, 2016; O'Farrell, 2014).

The impact of Arts-education on the development of students' identity and confidence, values, attitudes, empathy and perspective taking have been widely emphasised. The Arts seem to offer themselves intuitively as an opportunity to engage with philosophical elements of an IB education and to develop key characteristics associated with IM. However, empirical studies evidencing the development of characteristics and attributes associated with IM through the IB Arts in general and DP Arts in particular remain limited. Furthermore, the Arts are optional as a subject group in the IBDP and undervalued by the IB and its community (Elpus, 2019). In addition, much of the positive reports around the Arts, similar to those relating to IM, are generally not conclusive. Course content and approaches to implementation play a key role in ensuring the outcomes of Arts education on the development of intercultural understanding (Abril, 2006, 2009; González Ben, 2021; Holmes & VanAlstine, 2014; VanAlstine & Holmes, 2016). In this context, the objective of this study is to add empirical evidence to our understanding of the development of IM in students throughout the DP along with the role or impact of DP Arts courses on this development.

## Positionality and Reflexivity

This study has been inspired and sustained by a passion for IE and for the Arts, as well as by a deep concern and discontentment with ongoing conflicts and environmental exploitation globally. Throughout the time of the study, I have been affiliated with the IB as a curriculum manager in the Arts, a work that has further stimulated my ongoing interest. As an educator it is my conviction that there are solutions to many of the ongoing global issues and that there are ways for humankind to come together to resolve these. As a musician, I have witnessed the positive impact of the engagement with the Arts, but I have also been exposed to critical arguments relating to the impotence of the Arts in the light of the brutality and scope of many conflicts and global problems. It is in our daily work in education and in the Arts that we sustain the hope that by perseverance in the noble task a difference can be achieved.

Despite these personal connections to the study, as a researcher I have adopted a critical realist position with pragmatist tendencies as explained in the methodology in chapter 4. As a critical realist, I acknowledge the impact of values, interests and convictions on research in the sense that they ignite and maintain the inquiry. However, I am also convinced that although a researcher's personal values and beliefs cannot be fully segregated from the research, it is important to minimise the bias and to ensure that these values do not dominate the investigation, data collection and analysis to ensure the credibility of the research. Therefore, I have been fully committed to be unbiased and objective throughout the research process, for example through the choice of a survey as a research tool for both quantitative and qualitative data collection to limit any potential influence of my own values and interests on the data collection and findings. Furthermore, quantitative data analysis is relatively value-neutral, while the qualitative analysis in the form of a semantic approach to thematic analysis aims to identify findings without any additional interpretation of meanings. Through the methodology in chapter four and the findings in chapters five through eight, the methodological and analytical choices are acknowledged, reported, and justified in detail and with as much transparency as possible in order to minimise any concerns about researcher bias and to reduce the risk of doubt in the results and outcomes of this research.

## Structure of the Study

This thesis is structured into nine chapters. After the first introductory chapter (chapter one), two chapters are dedicated to the literature review (chapters two and three). This literature review aims to create a critical understanding of the rise of the IB in the context of IE and to provide the context for the importance of the construct IM. Therefore, in chapter two, the wider context of the study will be presented through an introduction of the evolution of IE along with purposes, reasons and ideologies of the internationalisation of education - as part of which the IB emerged - through a historical, philosophical and theoretical lens. The chapter will also discuss institutional approaches to the organisation of and teaching and learning in 21st century international education. Chapter three focusess on the conceptualisation of IM in order to establish the specific context for this study. For this, the chapter offers a summary of IM in practice, in research and in the views of educators, and then unpacks the theoretical foundations of IM based on IB documentation. The chapter will furthermore present aspects of IM in relation to some related terms and concepts. Based on these considerations, a conceptualisation of IM for this study will be proposed and the

development of a quantitative survey based on this conceptualisation will be outlined. Chapter four focuses on the methodology of this study, including the planning and set-up of the research, sampling, ethical aspects, approaches to quantitative and qualitative data analysis and philosophical considerations.

In chapters five through eight the quantitative and qualitative findings will be presented, whereby chapter five presents the quantitative findings based on PCA (principal component analysis) to finalise the scales used for data analysis and the results from the analysis of the data based on the established scales. Chapter six is dedicated to the themes that are identified in student responses in relation to the IBLPAs which are associated with the dimensions and sub-dimensions of IM as identified in the conceptualisation of IM in chapter three. This chapter focuses on identifying which themes from IB documentation were represented in student responses, and what other or additional themes emerged from student responses. Chapter seven introduces five categories that emerge from the qualitative student responses and presents the categories with supporting statements from student data. Chapter eight then uses the results presented in chapters six (themes) and seven (categories) for a descriptive analysis to identify how the frequency of responses differed in the pre- and post-tests and between DP Arts-students and DP Non-Arts-students and other student groups. The thesis concludes with chapter nine, in which the key findings are discussed in connection with the literature relating to international education, IM and Arts education. Furthermore, the chapter presents the implications of the study and offers recommendations for prospective research.

## Summary

This chapter has introduced the study in the context of the real-world issues that have prompted the thinking and questions throughout the research. The chapter has established the research problem that was derived from this thinking and connected it to the background in relation to IM, a construct that the IB – a large international education provider – aims to develop in students through their programmes. The chapter identified initial concerns and questions regarding the reliable implementation in diverse schools globally and consequently the reliable development in all students throughout the DP. The chapter also connected the research problem to considerations around Arts education. The Arts have gained increasing interest for their perceived potential to

foster understanding, attitudes and values associated with intercultural competences. However, empirical evidence for such claims is generally rare and inconclusive. This study aims to add to the body of knowledge regarding the development of IM and to gain a better understanding of the role or impact of Arts education in this process. The chapter also provided a statement on the positionality of the researcher and an overview of the structure of the study.

# Chapter 2: The Internationalisation of Education

## Introduction

The development of IE, the history of the International Baccalaureate and the evolution of the construct of IM are closely connected and related. Sylvester (2007) explains that IE comprises "education for international understanding" as well as "education for world citizenship", both concepts closely related to IM and an IB education (Tarc, 2016; Sylvester, 2007). In this sense it comes as no surprise that the construct of IM has at times been used interchangeably with the concept of IE (Hill, 2012, 2015). However, IE comprises two discrete areas of interest, namely education in international contexts (e.g. internationalisation of education) (Tarc, 2019), and education for international development, and – as this chapter aims to demonstrate - in these two contexts the ideological construct of IM is not always attuned with the actual directions and interests that IE may follow. For example, Tarc (2019) discusses such tensions in the context of two (at times contradictory) aspects in education for IM, which include literal or instrumental elements alongside aspirational or ideological visions for IE. This chapter discusses the development, drivers and tensions of IE to identify some of the roots and influences of an IB education and their importance to understanding IM in the context of this study. While it is outside the scope of this chapter to cover all existing criticisms associated with the development of IE and the internationalisation of education (Tarc, 2019), the aim is to identify and highlight some tensions that are particularly relevant to the IB and how these are reflected in the development or affect the perceptions and status of IM (Tarc, 2009).

To achieve this, the chapter introduces an IB education through its philosophical and historical roots and connects these to some fundamental debates and criticisms associated with the origins and nature of IE (section one). The chapter will provide an overview of the purpose, reasons and ideology of the internationalisation of education by looking at the contributions of individual scholars, the emergence of international schools and frameworks for IE, and ultimately the increasing demands for IE in the second half of the 20th and early 21st century. In section two, the chapter then looks at institutional approaches to the organisation, the teaching and the learning of IE from a more practical perspective. In this way, the chapter provides the context to more specific considerations of the construct of IM in chapter three and to this study in general.

## Section 1: The IB in the Context of the Development of International Education

**What is an IB Education**

An IB education aims to offer "*developmentally appropriate [...], broad, balanced, conceptual and connected*" education (IB, 2019a: pg. 5) across four programmes: the PYP (Primary Years Programme) for students aged 3-12, the MYP (Middle Years Programme) for students aged 11-16, the DP (Diploma Programme) for students aged 16-19, and the CP (Career-related Programme) for students aged 16-19. One of the identified aims of an IB education is to develop independent and internationally minded learners who embody the IBLPAs (IB, 2019a). Former Deputy Director General of the IB, Ian Hill, described IM as a comprehensive and aspirational idea or construct that comprises an educational approach as well as a (resulting) state of mind (Hill, 2015) – a state of mind towards humanity. In this way, IM comprises holistic qualities and characteristics manifested in international or intercultural awareness and sensitivities (Hill, 2015) which connect to and emerge from an educational approach that promotes specific knowledge, skills, attitudes or dispositions, and values – particularly open-mindedness, empathy, ethical and critical thinking – as students engage with global and intercultural issues and perspectives (Hill, 2010, 2012, 2015; Tarc, 2009, 2018).

Ideologically, IM is at the heart of IB's educational philosophy and is deeply anchored in IB's educational mission and philosophy, and its programmes and practices. It drives all learning, interactions and relations with the community and the organisation of schools within their own unique contexts. In this sense, IM is said to be the "*centre of both the culture and curriculum in IB world schools - it is the hub that connects the different elements of an IB education*" (IB, 2019b: 1). The IB document *Programme Standards and Practices* – a document that details through practical standards the implementation of IB programmes in schools – states:

> "*The aim of all IB programmes is to develop internationally minded people who, recognizing their common humanity and shared guardianship of the planet, help to create a better and more peaceful world. This powerful mission that drives learning informs the development of each IB World School—as well as the IB's larger global community of students and their families, teachers and supporters. IB World Schools strive to help realize this purpose for learning within their own local, state, national, international and global contexts*" (IB, 2022g: 4).

However, in reality the aspirations and visions of philanthropic educators often give way to practical, administrative, economic and other drivers that take a front-seat in the realisation of IE

(Tarc, 2009, 2019; Tate, 2013; Walker, 2018) as will be highlighted throughout this chapter. A catalyst to IB's phenomenal growth (IB, 2022j; Tarc, 2009) are for example the perceived academic advantages of an IB Diploma (Gardner-McTaggart, 2019; IB, 2016; Parish, 2021; Tarc, 2009) that allow alumni access to lead universities globally, rather than the ideological and humanistic values of the programmes (Lai et al., 2014; Walker et al., 2016). Nevertheless, these academic advantages in predicting university entrance ranking are not always evident, as a study comparing students' DP exam scores to their university entrance scores from a private school in Turkey in the years 2012-2019 has demonstrated (Metli & Özcan, 2021). Furthermore, IB education along with education for IM, have been associated with fostering (global) elitism (Bunnell et al., 2022; Mukherjee, 2020) and economic and social division (Bittencourt, 2020; Bunnell et al., 2022). It has also been argued that an education for IM leads to cultural convergence rather than encouraging cultural diversity (Bunnell et al., 2022; Cause, 2011; Poole, 2017). Criticisms further include the Western (and Euro) centrism, individualism, economic drive and political motivation of IE (Castro et al., 2015; Gardner-McTaggart, 2021a; Lai et al., 2014; Mukherjee, 2020; Poole, 2017; Rizvi, 2007; Sampatkumar, 2007; Tate, 2013; Walker, 2010) which have also called into question the cross-cultural relevance of an education for IM. The roots of these criticisms will be discussed in the upcoming sections.

### Connecting International Mindedness to a Wider Context

In an attempt to address criticisms of Western centrism, Hill (2015) connects IM to a wider historical context with philosophical and educational approaches of ancient civilisations, including ancient China and ancient Greece, as well as to the Islamic Golden Age. Hill (2015) argues that IM is rooted or emerging from ideals of past great civilisations. In this context, scholars have drawn connections from ancient Chinese educational philosophy to Western educational approaches which include the focus on moral character building (Nanzhao, 1996, as cited in Hill, 2015; Yu, 2009; Zhao, 2013). The emphasis on character-building, values and attitudes is further resembled in the ideology of education for IM (Hill, 2015). Other connections can be identified in the emphasis of critical thinking, the importance of reflection, and the value of practice-oriented learning (Zhao, 2013). Hill (2015) further draws connections to ancient Greece, where the purpose and focus of education was on both, the mental or intellectual and the moral or ethical development of students which culminated in interdisciplinary thinking at tertiary level. The ideal teacher was

one that was acting as a facilitator. Education was further considered to be life-long, comprehensive, holistic (regarding the whole learner) and intrinsically valuable rather than functional.

In a similar fashion, IM may be considered to connect to the belief in mutual respect, equality and lifelong learning as described in the Koran which were then adopted into the educational philosophy of the Islamic Golden Age (Al Farra, 2012, as cited in Hill, 2015; Sampatkumar, 2007). Educational thinking that connects with ideas of IM is also evident in the views of Al-Ghazali (1058-1111) (Hill, 2015) who emphasises the benefits of a holistic development including the "*intellectual, religious, moral and physical*" growth of students (Nofal, 1993 as cited in Hill, 2015: 33) as well as the need for students to apply their learning in practice, to acquire appropriate attitudes and skills, and to draw connections. The points correlate with fundamental pedagogical ideals (e.g. experiential learning, approaches to teaching and approaches to learning) and philosophical beliefs (e.g. interdisciplinarity, holism) of IE and ultimately IM (Hill, 2015). Likewise, Lyon (2009) demonstrates, how Western learning and thinking was strongly influenced if not shaped by Arabic scholarship throughout the European dark ages. In this context, Tan & Ibrahim (2017) further demonstrate the shared theoretical values of Confucianism and Islam with humanism, namely the "*development and transforming ability of human beings*" (Tan & Ibrahim, 2017: 394).

Such discussions are a demonstration of the global historical and philosophical influences on the thinking and practices of modern (international) education and prompts the acknowledgement of an interconnectedness of educational perspectives and philosophies across times and cultures (Hacking et al., 2018; Hill, 2015; Lyons, 2009; Mukherjee, 2020; Thompson, 2002). This idea is further expanded upon by scholars who identify the ongoing cross-influence of Eastern and Western education philosophies and advocate for a renewed sense of responsibility and commitment to emerging educational approaches appropriate to address needs, demands and problems of modern societies and across cultures (Littlejohn & Li, 2021; Lu & Chi, 2007; Mukherjee, 2020; Ng, 2009; Sampatkumar, 2007; Shenghong & Dan, 2004). In this context, there is a growing demand to challenge perceptions of universalism of truth and knowledge, to decenter knowledge, and to decolonialize curricula (de Oliveira Andreotti et al., 2015; Pais & Costa, 2020;

Pashby, 2020). Such sentiments for a humbler approach to IE is effectively summarised by the following quote: "*The [...] smooth integration of Chinese philosophy with Western ideologies [...] is the key to bringing world peace and harmony*" (Zhang, 2018: 38).

What is particularly important in the context of ongoing global co-fertilisation of educational thinking are realisations of interconnectedness and interdependence (Mukherjee, 2020). This notion is also apparent in the vision and development of IE through the thinking of individuals in the 18th century which is then expanded further in the 19th century through a greater emphasis on international and intercultural knowledge exchange. However, despite any correlations, interconnections and influences that may be identified across educational history, philosophy and pedagogy of diverse civilisation, such discourses are limited in the sense that they fail to acknowledge how cultural, political and economic power differentials (e.g. migration, colonialisation, trade, etc.) have and continue to impact the terms and conditions of IE (Bittencourt, 2020; Bunnell et al., 2022; Ferri, 2022; Silva & Oliveira, 2022). Oftentimes, critical considerations of inequalities, and the marginalisation of diverse others and minorities are overlooked in historical and philosophical discourses about cross-cultural communication and IE (Bittencourt, 2020; Bunnell et al., 2022; de Oliveira Andreotti et al., 2015; Ferri, 2022; Pashby et al., 2020; Pais & Costa, 2020). Another pain point that has been highlighted in the context of IE is the cultural homogenisation as opposed to the fostering and celebration of intercultural diversity (Bunnell et al., 2022; Poole, 2017). Furthermore, the internationalisation movement's philanthropist visions are contrasted (and sometimes hampered) by increasing notions of ('negative') nationalism (de Oliveira Andreotti et al., 2015; Bunnell et al., 2022), a growing divide between 'cosmopolitan citizens' and 'ordinary citizens' and a reinforcement of class-distinctions through IE (Bittencourt, 2020; Bunnell et al., 2022).

## The Contribution and Advocacy of Individual Scholars and the Emergence of Education Offices and Curriculum Frameworks

Generally speaking, notions of IE are considered to have emerged and unfolded with the rise of 'modern' nation-states around the 16th century (Butts, 1971, as cited in Sylvester, 2002) along with the ideas and ideals of the age of enlightenment. These ideals include, but are not limited to, the importance of knowledge, reflection and reasoning, the value of equality, tolerance and

brotherhood, and the emphasis on individual freedom, development and agency, which are markedly reflected in the characteristics exemplified in the IB's LPAs (Tate, 2013). Aside from this, Hill (2012, 2015) draws a connection from the ideals of IM to the beliefs of Montaigne (1533 – 92), who advocated for increasing interactions across national frontiers along with the consideration of views and opinions of diverse others (Hill, 2012, 2015). One of the earliest notions towards IE originates from Comenius (1592-1670), whose educational ideas included the promotion of international student exchanges, shared educational material, textbooks, language, and a humanistic education for all people regardless of gender or social status. Further, Comenius envisioned a 'Pansophic College' which would promote the exchange of pedagogical approaches and strategies amongst scholars (Hill, 2012; Sylvester, 2002; Tate, 2013) arguably for the purpose of greater intercultural understanding and open-mindedness (Hill, 2015). However, the inherently idealistic intention of such initiatives and of the principles of enlightenment stand in contrast to political and economic directions and events associated with Western hegemony, imperialistic thinking, colonialism, industrialisation along with economic exploitation, to name but a few (Gardner-McTaggart, 2021a; Mignolo, 2003, 2008). The discrepancy between ideological visions and economic and political realities follows IE (along with an IB education) well into the 21st century. The 'unfiltered export' of a cultural and educational ideology into diverse cultural contexts and contrasting belief systems (Tate, 2013) has naturally led to reservations, which continue to affect the commitment to and implementation of construct such as IM in practice (Gardner-McTaggart, 2021a; Lai et al., 2014; Mukherjee, 2020; Poole, 2017; Tate, 2013).

In the 18th century Jullien (1775-1848) – in response to the Napoleonic war – made an attempt to survey pedagogy and education across Europe by collecting information about education approaches and conditions across European countries. By initiating a "Special Commission on Education" tasked with this project (essentially an international comparative education project), Jullien is credited with an important first step towards international understanding through education initiatives (Scanlon, 1959; Sylvester, 2002, 2007). Hill (2012) points to a connection of the 18th century work *Emile or On Education* by Rousseau in which he sees a precursor to a constructivist pedagogy, which constitutes a fundamental approach in developing IM. Throughout the 19th century, Hill (2012) identifies further roots for the later concept of IM in the writings of Hugo (1843 and 1848) who, not unlike Jullien (Scanlon, 1959), advocated for peace and unity in

Europe along with a citizenship of the world or a nationality in humankind. In addition, Dickens (1864, as cited in Hill, 2012) – in an article on IE – promotes the idea of tolerance through exposure across a network of schools across Europe. Students would move across schools to learn the language and interact with students from different nationalities and backgrounds, which would be supported by shared curricula and recognition (Hill, 2012). This idea was further expanded on by the Dutch lawyer Molkenboer who – over half a century later, in which the idea of internationalisation had evolved, and countless international agencies been formed – proposed to set up a permanent IE advisory-board ("Der Bleibende Internationale Erziehungsrat") inspired by the model of the United States Federal Education Office. Molkenboer also started an IE journal[7] in three languages (English, French and German) to share knowledge and practice and to advocate the idea of the advisory board (Scanlon, 1959). His idea of the purpose of IE entailed the teaching of *world understanding* (Sylvester, 2007). Regardless, due to the conflict between ideological aims and nationalistic, colonial interests, Molkenboer's pacifistic proposal and initiatives at setting up such a council was not well supported and eventually failed (Scanlon, 1959). Nationally speaking, intentions of individual initiatives to develop a more egalitarian education system, for example by the German educator Wilhelm von Humboldt (Hohendorf, 1993), at times lead to a homogenisation of education which has been criticised to have benefitted and privileged some groups more than others, for example based on gender, linguistic, cultural, or social backgrounds, in both national and international contexts (Bittencourt, 2020; Mukherjee, 2020). Furthermore, the establishment of nationalist schools and education systems in the 19th century was increasingly utilised to build nationalism and stood in contrast to the notion of IE to foster intercultural understanding and peaceful interactions across borders (Delors, 1996; Hill, 2015; Räsänen, 2007; Scanlon, 1959; Sylvester, 2002, 2007). This type of nationalism deemed the attempts at IE as unpatriotic, not unlike some critical voices in the 21st century (Hill, 2015; Sylvester, 2002; Tarc, 2016, 2019; Tate 2013).

### The Exchange of Knowledge, Experience and Ideas through Conferences and Scholarship
The 19th century also brought the emergence of multiple international exhibitions and World Fairs. As part of a world fair, a first IE conference took place in 1851 at the Universal Exposition in

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[7] "*Journal of Correspondence on the Foundation of a Permanent and International Council of Education*" (Scanlon, 1959: 2)

London (Hill, 2012; Sylvester, 2002) with discussions relating to "*removing national prejudices*" (Sylvester, 2007: 12). Further, IE conferences (e.g. Philadelphia 1876, Chicago 1893, San Francisco 1923) focussed on providing a platform to share, exchange and discuss thoughts and experiences of educational practice across (national) boundaries (Sylvester, 2002, 2007). Out of such discussions grew aspirations for IE to "*promote the unity and peace of mankind*" by means of education which encompasses – beyond the academic or intellectual (e.g. "*literature, science and art*") – also the education of "*virtue, morals, and religion*" (Bonney, 1894, as cited in Sylvester, 2002: 98). Dreams that were further articulated as part of the conference included idealistic visions of a shared humanity and brotherhood which for the time being remained visionary (Sylvester, 2002).

In the early 20th century and until World War I, other scholars and educators (e.g. Lebonnois, Peeters, Kemény, Andrews) further pursued the ideas to set up networks to survey education activities internationally (alike Jullien), IE journals or IE offices (alike Molkenboer) with varying degrees of success (Scanlon 1959). Around this time, a vision for a framework for IE emerged by Kemény which encompassed several strands including but not limited to education scholarship[8], educational organisation and design[9] and a focus on curriculum content[10] (Scanlon, 1959: 5; Sylvester 2002, 2007). Other initiatives in this time frame with the focus on knowledge exchange, scholarship and record keeping on IE included the publication of international journals[11], research projects[12], but also historical surveys and writings on the development, scholarship and philosophy around IE and associated terms and definitions[13] (Sylvester, 2002, 2007).

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[8] Examples include the study of education-systems from different states or the holding of teacher conferences for knowledge exchange (Scanlon, 1959; Sylvester, 2002, 2007).

[9] Examples include the international organisation and design of education (Scanlon, 1959; Sylvester, 2002, 2007).

[10] Examples include (Western) human rights education, peace-education, education to abolish racial prejudice, and a review of textbooks to eliminate any materials that were not conducive to peace and intercultural understanding (Scanlon, 1959; Sylvester, 2002, 2007).

[11] For example, *Education for a New Era: An international Quarterly Journal for the Promotion of Reconstruction in Education*, 1920, Ed. B. Eisnor (Sylvester, 2007).

[12] For example, a study conducted by Smith and Crayton in 1929 at the School of Education at Indiana University, USA to identify standards for IE along with related concepts and mind-sets (Sylvester, 2007).

[13] For example by Faries (1915), Prescott (1930), Harley (1931), Kandel (1937), Brinckman (1950) (Sylvester, 2002, 2007).

At this time the idea of nationalism as the basis rather than the antipode of internationalism emerged (Sylvester, 2002). In this context, Kemény (Scanlon, 1959) and Kandel (1937, as cited in Sylvester 2002) argue that both concepts or dimensions (the international [between nations] and the national) do not negate each other but that they rather co-exist and must be utilised accordingly, each in its own spirit, namely *nationalism* in the form of a "*fine patriotism based upon a love of country rather than upon revenge and hatred of others*" (Thomas, 1932, as cited in Sylvester, 2002: 116) and *internationalism* in a sense of "*international understanding, international cooperation, and amiable international relations*" (Kendal, 1937, as cited in Sylvester, 2002: 118). The theme and definition of *fine patriotism* continues until today as can be seen in the expression of some important contemporaries, such as the former German president Johannes Rau, who stated in a speech on 09.11.2000:

> "*Patriotism can flourish only where racism and nationalism are given no quarter. We should never mistake patriotism for nationalism. A patriot is one who loves his homeland. A nationalist is one who scorns the homelands of others*" (Rau, 2000, as cited in Barenboim & Said, 2004: 172).

The notion of a harmonious coexistence of the 'national' and the 'international' has followed education for IM as part of the IB well into the 21st century (Hill, 2015; Mukherjee, 2020; Tarc, 2009; Walker, 2014). In contrast, however, socio-economic and political tensions between 'national' or 'ordinary' citizens and 'international' or 'cosmopolitan' citizens that are rooted in a different reality of IE have also been identified (Bunnell et al., 2022). IE has traditionally served a 'mobile elite' (Bunnell et al., 2022; Hill, 2012; Tarc, 2009, 2019) (formerly) in preparation of work in colonies, as distinguished civil servants, and more recently in the ever-expanding global labour market (Bunnell et al., 2022; Hill, 2012). With the expansion of IE to serve and strengthen the economic opportunities of a globally mobile middle class (Bunnell et al., 2022; Parish, 2021) an increasing division between 'ordinary national' citizens and 'cosmopolitan global' citizens has been facilitated through elite IE (e.g. through the IB). In this context, education for IM along with the IBLP have been criticised as a regulatory force (Poole, 2017) and "*as a collectivizing and unifying 'platform' that acts as a potential binding force, uniting young people with a sense of shared (global) concerns and responsibilities*" (Bunnell et al., 2021: 214) who are "*citizens of anywhere and nowhere*" (Bunnell et al., 2021: 212) which consequently removes them "*from the concerns and interests of the ordinary national citizen*" (Bunnell et al., 2021: 213). In other words,

global citizenship is – locally – associated with a lofty contempt and disconnectedness from immediate problems and concerns which starkly contrasts the sentiments expressed at the beginning of this passage of a "*fine patriotism*" combined with international understanding, intercultural collaboration and relationship-building skills

## International Schools and Organising Bodies – Experimental Education

The first international schools started to emerge in the second half of the 19th century and along with them the institutionalisation or formal organisation of IE. With these, the term *IE* was established. However, it was only in the first half of the 20th century that international schools[14] started to demonstrate particular shared characteristics and aims (Hill, 2007, 2015; Sylvester, 2002, 2007). From the various elements, four distinct categories emerged which are listed in the overview in Table 1, overleaf. During this time, the visions and aims of such schools as well as that of IE conferences were often mirrored by associations or organisations[15] that were formed in the context of the evolving IE. The foci of such groups or associations are identified in Table 2, overleaf.

While the previous passages have explored the wider context of IE, the upcoming sections will explore the more immediate influences on the founding of the IB and reasons for the importance of an education for international understanding – the forerunner of an education for IM (Hill, 2010; Tarc, 2009; Sylvester, 2005).

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[14] Schools included, but are not limited to *Spring grove, London* (1866 - 1889) and similar schools near Paris, France, and Bonn, Germany which opened in the 2nd half of the 19th century but closed due to war activities; *Odenwald School,* Germany (1910), *International School of Geneva*, Switzerland (1924), *Yokohama International School*, Japan (1924), *International School of Peace,* Boston, USA (1910), *International Folk High School,* Elsinore, Denmark (1921), *Children's Community Workshop*, Bilthoven, Netherlands (Kees Boeke, around 1930), *École d'Humanité*, Switzerland (Paul Gaheeb, 1937), *College Cévénol*, France (1938) (Sylvester, 2002, 2007) as well as the *United Nations International School* (UNIS) (1947), *United Nations Nursery School*, Paris, France (1951), *Vienna International School*, Austria (1959) (Hill, 2015)

[15] Such associations and organisations included the *International Bureau of New Schools* (later *New Education Fellowship*) in Geneva (Ferrière, 1899), the *League Internationale pour L'Éducation Nouvelle* (Ferrière and Rotten), the *International Conferences of New Education Fellowship* (1920), the *Progressives Education Association* (USA, 1919), the *American School Peace League* (Andrews, 1908), the *International Confederation of Students* (1919)*,* the *Institute of International Education* (1919), the *League of Nations Committee on Intellectual Cooperation* (1921), the *International Bureau of Education*, the *World Federation of Education Associations* (1923) (Sylvester, 2002, 2007) as well as the *Conference of Principals of International Schools* (later on *Internationally Minded Schools* which then merged with the *International Schools Association*) (1949), the *International Schools Association* (1951), the *International Schools Services* (1955), *European Council of International Schools* (1965) (Hill, 2007).

*Table 1: Shared characteristics of international schools in the early 20ᵗʰ century*

| Category | Shared characteristics |
|---|---|
| Ideology and philosophical vision | <ul><li>an ideology and a philosophical vision relating to international and intercultural understanding which also mirror idealistic and humanistic educational values, for example through an education for:<ul><li>intercultural understanding, sympathy towards diverse others, world-mindedness, international goodwill, and a commitment to world-peace, international collaboration, and internationalism (Hill, 2007, 2015; Sylvester, 2002, 2007),</li><li>brotherhood, shared humanity, world citizenship, global citizenship ("Weltbürger") and service (Hill, 2007, 2015; Sylvester, 2002, 2007),</li><li>a shared understanding that nationality is accidental and serves as a foundation to internationalism, meaning internationalism is a direct outcome of individual diverse nationalities (Scanlon, 1959; Sylvester, 2002, 2007)</li><li>an awareness of the impact of global and/or political events and attitudes, such as the negative impact of chauvinism, discrimination or wars (Sylvester, 2002, 2007) and with this an emerging sense and understanding of interconnectedness.</li></ul></li></ul> |
| Administrative and functional advantages | <ul><li>an administrative international dimension, for example schools serving families from an international community (Bunnell et al., 2022; Hayden & Thompson, 1995; Hill, 2010; Thompson, 2002)</li><li>later on, also the practical aim to offer a diploma that is accepted in students' home countries for the entrance to higher education (Hill, 2007, 2010; Renaud, 1974)</li><li>a functional intercultural dimension, for example the intersection of cultures through a diverse student body with direct educational benefit to students from such intercultural exchanges (Hill, 2007, 2015; Sylvester, 2002, 2007)</li><li>a vision towards collaboration across schools with benefits relating to recruitment of staff, teacher training, and professional development possibilities (i.e. workshops and training) (Hill, 2007)</li></ul> |
| Curriculum development | <ul><li>internationalisation of the content of courses, for example in the languages, history, or geography</li><li>internationalisation through the development of curricula for international and intercultural understanding, including relevant skills and attitudes<br>(Hill, 2007; Sylvester, 2002)</li></ul> |
| Pedagogy | <ul><li>the deployment of more effective means of delivery</li><li>a pedagogy for IM<br>(Hill, 2007)</li></ul> |

| Knowledge exchange | Progressive pedagogy and international collaboration | International understanding | Internationalisation of curriculum |
|---|---|---|---|
| • promotion of international education scholarship (e.g. through conferences)<br>• the exchange of approaches to international education (curriculum, pedagogy, implementation, etc.)<br>• teacher training with international perspective<br>• promotion and support of student exchanges and residencies abroad<br>• (Hill, 2012; Sylvester, 2002) | • advocacy for educational approaches that are student centered (as opposed to curriculum or content centred)<br>• (Sylvester, 2002, 2007)<br><br>• educational collaboration across nations<br>• collaborative problem-solving<br>• textbook reviews<br>• (Hill, 2012; Sylvester, 2002, 2007) | • the promotion of peace and international justice through education for intercultural and international understanding<br>• the identification of modes of education, forms of cultural engagement and standards for the development of international and intercultural understanding through education in schools globally<br>• (Hill, 2015; Sylvester, 2002, 2007) | • vision for the development of courses with international focus including:<br>  o critical thinking with international philosophical perspectives on knowledge and understanding<br>  o psychology, history, justice with international dimension<br>  o arts, culture and literature with focus on diverse communities<br>  o sciences with focus on international discoveries that fostered progress<br>  o social sciences with international perspectives<br>  o international affairs, foreign languages,<br>• (Sylvester, 2002) |

## International Education in the Second Half of the 20th Century: The Ideological Aim of Education for Peace, Economic Cooperation and Global Citizenship

Thompson (2002) associates 19th century IE with "*a pragmatic dimension*" in response to "*burgeoning trade and imperialist opportunism*" (Thompson, 2002: 5), a notion that is mirrored in 20th century developments in IE. In fact, this is a pattern noticed by Tarc (2016, 2019) who observes a fluctuation of the importance of and focus on IE in response to impactful social, economic and political events, for example (world-) wars or the fall of the iron curtain in 1989. The impact of 'disastrous' events tends to increase the demands for internationalism, intercultural understanding and education for "world citizenship" (Tarc, 2019), while for example nationalistic sentiments or colonialism of the 19th century tended to hamper the support of international cooperation and advancements in IE (Scanlon, 1959). Similarly, Burn (1980) suggests that "*international education has tended to react to shifting currents in international relations*" (Burn,

1980, as cited in Sylvester, 2005: 136). Such patterns are equally (if not more acutely) evident throughout the second half of the 20th and early 21st century.

After the devastation of two world-wars, a new impetus emerged for the development of peaceful international relations and a refreshed realisation of the global interdependence towards economic prosperity (Rizvi, 2007; Sampatkumar, 2007). The increasing interest and conviction of the positive role of education in this vision towards a peaceful co-existence was no longer only shared by a few enlightened individuals, but increasingly also by international organisations, international schools and national governments. Nevertheless, when the United Nations (UN) were formed in 1945, there was still an initial reluctance to include educational affairs into the charter. However, due to the initiative of US educators "*references to international cooperation in education*" were included (Carr, 1947: 258). In the context of the founding of the UN, the US education representative advocated strongly for the inclusion of a focus on education as they stipulated that any attempt at the building of a better and more peaceful world would have to start with reaching the minds and hearts of young people. Carr (1947: 258) stated: *"If you don't begin with the children, your Charter won't work very well or very long."* As a result, UNESCO was founded in 1945 with headquarters in Paris and an assignment to work towards peace and safety especially through a particular focus on education, but also through sciences (natural and social sciences and humanities), through culture and cultural centers (e.g. libraries, museums, archives) and through creative Arts (Wilson, 1946). Those involved in developing a charter for UNESCO were well aware of the challenge that was at hand as they faced initial sentiments of concern, suspicion and resentment when the group set out to articulate and advocate their aspirations to foster international understanding and world citizenship through education (White, 2011; Wilson, 1946). In this context, Carr stipulates: *"The waging of peace requires all out mobilization just like the waging of war"* (Carr, 1947, as cited in White, 2011: 305). Wilson further assures the inter-governmental character of this organisation and stresses that there was no intention of dominating in these fields and that participation and engagement were "*voluntary associations of a professional and scholarly character*" (Wilson, 1946: 111). The aims of the educational aspect of this work focussed on

- identifying approaches to promote international understanding at all education levels, primary, secondary and tertiary (Carr, 1947),

- revising textbooks and educational materials to identify examples conducive of international and intercultural understanding and, if necessary, also those that are hindering or adverse to sustained peace, safety and development (Carr, 1947; Wilson, 1946),

- collaborating with the World Health Organization (WHO) to establish and promote an educational health programme for students (Carr, 1947),

- addressing issues of illiteracy globally (Carr, 1947; Wilson, 1946), and

- establishing a charter for the teaching profession and with it identifying educator's rights, status and duties in the contemporary society (Carr, 1947).

## *The Founding and Development of the IB*

It is in this wider historical and political context that the IB was born. After years of efforts and a period of trials (Hill, 2010), the International Baccalaureate Organization was officially founded and registered in 1968 in Geneva, Switzerland (Fabian et al., 2019; Hill, 2007, 2010; Renaud, 1974; Tarc, 2009; Sylvester, 2005). Paramount in these founding efforts were a number of private international schools, such as the Atlantic College (Wales), the International School of Geneva (Hayden & Thompson, 2016), the United Nations International School in New York (UNIS) and others (Hill, 2010), along with some visionary pioneers (e.g. Cole-Baker, Goormaghtigh, Peterson, Pickard, etc.) (Hill, 2010), and the aforementioned ISA (International Schools Association) in conjunction with a network of international schools (Hill, 2007, 2010; Tarc, 2009). After an initial 4-year trial period (1967-1970) with the last trial examinations in 1970, the IB's experimental period began. In this period, subjects with international orientation from 6 groups[16] were offered in addition to two compulsory core subjects including TOK (Theory of Knowledge) and CAS (Creativity, Action, Service) adding compulsory dimensions of critical thinking about the nature of knowledge, creativity and experiential or service learning to the DP (Hill, 2010). Practical aims of the initiative included the development of a shared curriculum or framework and the need to provide an internationally recognised certification for students to enter higher education in the light of the diversity of the student population (Hill, 2007, 2010; Renaud, 1974). The latter problem was twofold in that schools had difficulty offering the diverse qualifications that were required in

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[16] The subject groups from which students were to select included World literature, (Additional) Language studies, Humanities, Sciences, Mathematics and The Arts (Hill, 2010).

students' home countries, while at the same time students needed a qualification upon their return to gain university entrance in their home countries after completing their regular schooling (Hill, 2010; Renaud, 1974). Furthermore, the ideological vision was to develop students' understanding of their own roots along with an understanding of others and the world (Hill, 2007, 2015), knowledge and competences (along with critical thinking), as well as their attitudes and values of appreciation and respect towards humanity (i.e. world citizenship). Practically, this included a holistic education approach (Hill, 2007) and a commitment to critical "*analysis and synthesis*" as opposed to traditional approaches of "*recall of facts*" (IB, 1969, as cited in Hill, 2010: 88).

Parallel to the IB, the second half of the 20th century brought an ever-increasing demand and interest in the refinement of the purposes and aims of IE, ranging from the counteraction of war, terrorism and conflict (Delors, 1996; UN Secretary General, 2017; UNESCO, 1974) through the consolidation of peace and a better understanding amongst nations and people (Hayden & Thompson, 2016; Hill, 2012; Sylvester, 2005; UN Secretary General, 2017; UNESCO, 1974), a focus on the positive impact of intercultural and global competences on global economic and social development (Beck et al., 2011; Delors, 1996; Guo & Chase, 2011; Hayden & Thompson, 2016; Knight, 2021; OECD, 2018; Sampatkumar, 2007), and national economic interests which were perceived as both, fundamental to continued prosperity and economic growth and development and as increasingly dependent on effective interactions with culturally and linguistically diverse peoples and nations (Starr 1979, as cited in Hayden & Thompson, 1995; Spaulding et al., 1982, as cited in Sylvester, 2005). In this context, Peterson, a founder and former Director General of the IB expressed that (international) education should "*not simply help the next generation to know better their enemies or their rivals, but to understand and collaborate better with their fellow human beings across frontiers*" (Peterson in Hayden & Thompson, 1995: 340).

Meanwhile, the nascent IB struggled with the balance between sustaining the ideological vision of an education towards increasing international understanding (which later merged into IM) and the economic practicalities of a growing organisation (Hill, 2010; Tarc, 2009). The international dimension and the desire for greater international understanding – arguably the inherent nature of the IB – was also a default of the international positions or the affiliations with (Western) governments (e.g. as civil servants) which the initiators of the IB held (Tarc, 2009). Such

positionality with diplomatic association would have influenced the character and outlook of the IB, for example a type of neutrality around conflicting views and a commitment to navigating a peaceful (sometimes silent) acceptance and coexistence (Castro et al., 2015). This neutrality stands in contrast to some of the IB's educational aims towards a more just and sustainable world (IB, 2022a) where such aims and actions would demand activist approaches and proactive citizenship. Furthermore, this positionality has been associated at times with the elitist status of the organisation and an IB education (Bunnell et al., 2022; Gardner-McTaggart, 2021a). In other words, the organisation's apolitical character and the proactivist educational aims are either in direct conflict or counterproductive.

In the context of tensions of a growing and evolving institution, Tarc (2009) focuses on instrumental, ideological and educational aspects that influence an education for IM. Continuously recurring instrumental tensions included operational and fiscal pressures to ensure the survival of the IB which often compromised the focus on the IB's ideology, namely an education for IM (Hill, 2010; Tarc, 2009). Furthermore, the growing number of IB stakeholders diversified so that both relevance and representation became a point of tension and focus (Tarc, 2009). In response, the Middle Years Programme (ages 11-16 years) was added in 1994, followed by the Primary Years Programme (PYP) (ages 3-12 years) in 1997. The programmes offer an IB education to students of younger age groups (Hill, 2007, 2010). In 2012 the Career-related programme began in response to a need for practical and career-oriented engagement (IB, n.d.-b). Access and reach included considerations surrounding the elite status of an IB education, both academically and economically. The late 20<sup>th</sup> century saw a great increase in state-funded schools committing to the IB and with this the diversification of socio-economic backgrounds of students, especially in North America (Hill, 2012; Tarc, 2009). Nevertheless, until today the IB has remained generally unavailable to economically disadvantaged groups. Furthermore, in many contexts the IB and especially the DP is – against its inherent pedagogical and philosophical aims to be inclusive to all students – still considered and deployed as a programme for the academically 'gifted' and representative of a predominantly Western education (Tarc, 2009). This is also inherent in IB curricula, and especially the DP is criticised for its traditional outlook and approaches, its focus on content, and assessments (Tarc, 2009). Such criticisms resonate with the academic value that is being placed on obtaining an IB Diploma (also driven by university requirements) (Tarc, 2009) and they certainly correlate

with the optional status of the Arts in the DP which are considered academically less rigorous and less important (Elpus, 2019).

Another expressed aim of IE included the collaboration and partnership in research along with comparative education research, aimed at increasing the understanding of and improving the approaches to (international) education pedagogies and practices (Hayden & Thompson, 1995, 2016; Knight, 2004; Guo & Chase, 2011; Knight, 2021; Sylvester, 2005). However, the aforementioned academic drive – particularly within schools and among teachers under exam and achievement pressures – often continues to outweigh the educational values that the organisation has placed on progressive pedagogies, holistic development, and child-centered education. Here, an ongoing tension persists between what constitutes IB's educational vision and character, what stakeholders' value (and ultimately pay for), what practical pressures are imposed[17], and what is implemented in practice (Bunnell, 2019; Dickson et al., 2018; Kidson, 2019, 2021; Lai et al., 2014; Tarc, 2009, 2018).

On an ideological level, scholars and international organisations further emphasised the importance of education rooted in international and global perspectives across all education levels (Hill, 2012; UNESCO 1974) to develop

- intercultural respect, understanding and empathy (UNESCO, 1974),
- intercultural knowledge, understanding and values (Hayden & Thompson, 2016; Sylvester, 2005),
- an appreciation for the interconnectedness of the world (Butts, 1971, as cited in Sylvester, 2005; Griffin and Spence, 1970; UNESCO, 1974), along with
- an understanding of one's own responsibility for self, others and the planet (Fashe, 1985, as cited in Hayden & Thompson 1995), and
- effective and respectful cross-cultural communication skills, and competencies for collaborative problem-solving (OECD, 2018; Sampatkumar, 2007; UNESCO, 1974).

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[17] For example, additional tensions exist in schools that offer the IB alongside a national curriculum.

In this context, the IB mission statement[18] was conceived in 1996 which comprised some, but certainly not all of these key ideologies and aims of IE. Therefore, the IBLP which identified key attributes associated with the development and demonstration of IM was adopted in 2006 (IB, 2017). However, the inherent vision, nature and ideology of an IB education often gave way under more urgent practical pressures of a growing organisation. Some of the ideological dilemmas associated with an education for international understanding (later to become IM) have been discussed above with regards to the roots of IE, along with education for IM and the associated IBLP, in the ideology of the Enlightenment period, as well as the contentions associated with the development of global citizens (Tarc, 2019). Further tensions of IE in a global context will be highlighted in the next passage.

The list provided in table 3 (overleaf) is an amalgamation of commonly articulated educational aims and outcomes which are associated with IE. The overview shows the emergence of four broad categories of aims in IE, namely the development of *global knowledge and understanding*, *global competences and intercultural skills*, *attitudes* and *values*, which ultimately lead to a *willingness and competence to take responsibility and act on global problems*. These categories are fundamental to an IB education, specifically the education for IM, which will be further unpacked in the conceptualisation of IM in chapter 3.

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[18] "*The International Baccalaureate® aims to develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect. To this end the organization works with schools, governments and international organizations to develop challenging programmes of international education and rigorous assessment. These programmes encourage students across the world to become active, compassionate and lifelong learners who understand that other people, with their differences, can also be right.*" (IB, 2022a)

*Table 3: List of common educational aims and outcomes believed to counter global issues through IE.*

| **Aims**<br>*International/global education aims to develop:* | **Envisioned outcomes**<br>*Envisioned outcomes of international/global education include:* |
|---|---|
| **Global knowledge and understanding** | • global knowledge and understanding (DfES, 2005; Hayden & Thompson, 2016; Sylvester, 2005)<br>• reduced prejudices along with increasing intercultural understanding and cross-cultural respect towards peaceful coexistence in increasingly multicultural and diverse societies and nations (DfES, 2005; OECD, 2018; Thompson and Hayden, 1995; UN Secretary General, 2017; UNESCO, 1974)<br>• growing awareness and understanding of (global) interconnectedness (Griffin and Spence, 1970; Hill, 2012; Johnson, 2019; OECD, 2018; Sylvester, 2005; UNESCO, 1974)<br>• awareness of environmental responsibilities (Hayden & Thompson 1995; Haywood, 2007; OECD, 2018; Roberts, 2013) |
| **Global competences and intercultural skills** | • development of inquiry, thinking and reflection skills (OECD, 2018) along with the ability for effective perspective-taking and self-awareness (interpersonal connectedness) (Johnson, 2019; OECD, 2018)<br>• skills needed for competent problem-solving in the light of global challenges (OECD, 2018; Sampatkumar, 2007; UNESCO, 1974)<br>• effective collaboration skills (Hill, 2007, 2015; Sylvester, 2002, 2007)<br>• (cross-cultural) communication skills (OECD, 2018; Sampatkumar, 2007; UNESCO, 1974) including language learning and non-verbal communication skills (Ang et al., 2015; Garrett-Rucks & Jansa, 2020; Haywood, 2007)<br>• the competent and accountable engagement with (new and emerging) media and technologies (Bakhtiari & Shajar, 2006; OECD, 2018)<br>• development of intercultural and global competences to meet the demands of the globalising world and market and to improve/enhance employability (DfES, 2005; OECD, 2018; Rizvi, 2007)<br>• skills for mediation and dialogue to prevent and resolve conflicts through effective mediation and dialogue (UN Secretary General, 2017)<br>• the ability to analyse, predict and strategise for sustainable development (OECD, 2018) |
| **Attitudes and values** | • open-mindedness (Bruckner, 2016; Hill, 2012, 2015)<br>• world-mindedness (Merryfield et al., 2008)<br>• fair, ethical and principled judgement, choices and decision-making (Hanson, 2010; Hill, 2015; Panjwani, 2014; Roberts, 2013; Walker, 2014)<br>• considerations of the needs and demands of others including the environment (OECD, 2018; Tarrant, 2010; Tarrant et al., 2011; Wynveen et al., 2012) |
| **Willingness and competence to take responsibility and to act on global problems** | • a willingness and competence to act in pressing global problems (OECD, 2018; Merryfield, 2008, 2012; Tarrant, 2010; Tarrant et al., 2011; Wynveen et al., 2012)<br>• a willingness to live responsibly with regards to others and the environment (Hayden & Thompson 1995; Hill, 2012; Roberts, 2013)<br>• a willingness and competence to further or work towards sustainable development and human rights (DfES, 2005; OECD, 2018; Oxfam, 2015, 2019; UN, n.d.-b) |

## Ongoing Tensions in International Education: The Disparities between Ideology, Interests, Power and Influence

In the UN Delors report (1996) education was identified as a key method or approach for humankind to progress in a more balanced and peaceful way and to diminish some of the pressing global problems, including poverty, conflict, injustice, discrimination, etc. The vision to create a more peaceful, just and equitable world to live in, with mutual respect, international and intercultural understanding, fair sharing of resources, and equal access to education and development had by far not been realised (Delors, 1996). Instead, unequal access to resources and knowledge has further enhanced the disparities between the developing and the developed world (Bakhtiari & Shajar, 2006; Beck et al., 2011) as did aggressive economic developments, materialism, continued violent conflicts, social inequality, and the disregard for and exploitation of the world's resources (Delors, 1996; OECD, 2018). In the context of such challenges, Schonmann who worked with Jewish and Arab students in the context of education for peace through theatre expresses the ongoing demands on education as follows:

> *"Education in the era of peace is essentially a 'war for peace', an oxymoron wherein the dialectic of war and peace is at a high and dangerous level. The educational system, which still reflects the complex, enduring conflict between the two nations, must adapt to the new era and deal with issues of peaceful coexistence"* (Schonmann, 1996: 176).

To counter such developments, the United Nations agreed in 2015 – after work throughout two decades – on 17 Sustainability goals (SDGs), one of which (SDG4) is titled "Quality Education". All sustainability goals are addressing pressing global challenges and problems, including poverty, equity, equality, health, environmental issues, etc. (UN, n.d.-b). In 2017, a UN Secretary General report focussed on peacebuilding through (interreligious and intercultural) dialogue, mediation and the prevention of (violent) conflicts and terrorism. This report also emphasised the role of young people, of education and of training young professionals in this mission towards greater tolerance, (inter)cultural understanding and literacy, recognition of diverse communities, respect for cultural others and better intercultural collaboration. In more practical terms, this thinking is reflected in initiatives, frameworks and documentation around *global* or *world citizenship education* (Dower, 2003; Dower & Williams, 2016; Hayden & Thompson, 2016; Myers, 2010; Oxfam, 2015; Oxley & Morris, 2013; Rapoport, 2009, 2013, 2015, 2020; UNESCO, 2021b), *global competences* (OECD, 2018), *global dimensions* (DfES, 2005), *education for sustainable development* (OXFAM,

2019), *education for globalization* (Agbaria, 2011; Torres, 2002) or *education for a better world* (IB, 2022a; Roberts, 2013). The stated goals of such educational initiatives or frameworks tend to be similar in their focus, namely, to counter through education the precarious globalisation of problems described in the previous section (Delors, 1996).

Other purposes of IE included educational and financial assistance or support to economically disadvantaged regions (Bakhtiari & Shajar, 2006; Butts, 1971, as cited in Sylvester, 2005; Griffin and Spence 1970; Silva & Oliveira, 2022; Thompson & Hayden 1995; UN Secretary General, 2017), the 'export' or 'import' of (Western) curricula and the branching or franchising of educational institutions for political or commercial interests (Hayden & Thompson, 2016; Knight 2021) which has also been criticised as a way of imposing Western values and dominance (Beck et al., 2011). In this context, it has been argued that global education policies of states and regions who are most conflict-ridden and most dependent on financial, specialist (i.e. expertise) and technological aid (Bakhtiari & Shajar, 2006; Silva & Oliveira, 2022), specifically in the Global South, are most affected by global influences and educational discourses (Silva & Oliveira, 2022). However, in the development of such policies, ongoing power inequalities and dominances (as opposed to a fair dissemination of influence) are the norm. In other words, global agencies with inherent power imbalances are successfully influencing the educational narrative by "*introducing their educational agendas into these countries*" (Silva & Oliveira, 2022: 520). Likewise, the growing influence of the IB on education reforms and policies of state systems globally has been noted (Gardner-McTaggart, 2021a; Tarc, 2009) and here, the criticism of IB's Western centrism and leadership imbalances are of paramount importance (Gardner-McTaggart, 2021a).

Global citizenship education (GCE) has emerged and established itself as a variant of IE in the 21st century (Goren & Yemini, 2017; Tarc, 2019). The term is closely associated with and connected to education for IM and education for international understanding (Gardner-McTaggart, 2021a; Tarc, 2016, 2019) and there have been a number of approaches to conceptualise and critique GCE (Goren & Yemini, 2017; Pais & Costa, 2020; Pashby et al., 2020; Tarc, 2019). Some of the main criticisms connect back to the earlier discussion about the frictions between 'global' or 'cosmopolitan' citizens versus 'ordinary national' citizens. With regards to developing the cosmopolitan, global or world citizens – a common goal in many secondary and higher education

institutions and certainly associated with an education for IM (Bunnell et al., 2022) – a tension has been identified between the conflicting notions of global citizenship education with a neoliberal, market-oriented focus on the development of an 'entrepreneurial' individual versus the development of "*high values of social justice, solidarity, diversity and communitarian engagement*" (Pais & Costa, 2020: 2). Similarly, others have pointed to the tensions between the aspirational or ideological visions and the instrumental or pragmatic realities of GCE (along with IE and education for IM) (Savva & Stanfield, 2018; Tarc, 2009, 2016, 2019). Furthermore, GCE has been criticised for being overly dominated and influenced by Western, Anglophone thinking (Parmenter, 2011, as cited in Pais & Costa, 2020; Pashby et al., 2020), Western economic interests (Gardner-McTaggart, 2021a), a form of 'aggressive' universalism (Pashby et al., 2020), and in need of decolonialisation and diversification (Andreotti, 2006, 2011, as cited in Pais & Costa, 2020; Mukherjee, 2020; Pashby et al., 2020). It is important to note that to some, GCE is part of the problem of reinforcing a divide and creating elitism and power imbalances (neoliberal view), while to others, GCE is part of the solution of some of the worlds' new inequalities, power imbalances, environmental and social problems (liberal and critical democratic views) (Pais & Costa, 2020). In summary, apart from historical and conceptual discourses on capturing and defining GCE, the conflict between economic and political interests or dominance and ideological visions and aspirations have been at the heart of the debates concerning GCE as an extension of IE and education for IM.

In connection with commercial and economic interests, the demands for international or global education increased further. Such interests were rooted in the increasing economic globalisation with an ever-expanding global ('expatriate') job-market leading to a demand for a global workforce (Bunnell et al., 2022; Hill, 2012; Hayden & Thompson, 2016) and consequently to an increase in globally mobile families who needed access to internationally focussed schooling for their children (Hayden & Thompson, 2016; Hill, 2012; Poole, 2017; Renaud, 1974). Attaining an IE has also been associated with an effective tool in becoming competent in the English language, an important precursor in the globalising market (Gardner-McTaggart, 2021a; Hayden & Thompson, 2016). Here, criticisms of an IE or education for global citizenship benefitting and privileging a 'global' (Bunnell et al., 2022) or 'mobile' elite (Tarc, 2009: 36) have emerged (which connects back to an earlier discussion on the frictions between 'national' and 'global' citizens

caused by education for IM). However, the demand for an international and intercultural outlook of education is not limited to the privileged elite. Increasing work-related migration as well as politically, conflict, environmentally or otherwise induced refugee movements along with the large-scale diversification of traditionally (allegedly) homogenous populations and cultures are demanding changes in purpose, aims, and approaches to education as well (Baumann, 2016; BMBF, 2012, 2015; Räsänen, 2007; Rizvi, 2007; Sampatkumar, 2007). In this context, the concept of 'the other' is continuously changing in many school contexts. There is now a much greater diversity in state school classrooms, which ultimately calls for increasing considerations of what is considered a relevant curriculum (Hill, 2012). However, there has also been a distinct increase of state-funded schools offering IE programmes, for example in the form of the IB (Hayden & Thompson, 2016; Hill, 2007, 2012). In this context, a typology of international schools has been proposed, which include traditional, ideological, and non-traditional international schools (Hayden & Thompson, 2016). The background of these school is affecting their identity, outlook and implementation of IM (Savva & Stanfield, 2018) as discussed in the previous paragraph.

Apart from these developments an internationally focussed education also gained a new impetus as it became a form of high-stakes academic and internationally competitive education in an increasingly competitive job-market (Hayden & Thompson, 2016; Hill, 2012, 2015). The IB is no exception to these trends, as mentioned at the beginning of the chapter. In addition to delivering internationally comparable attainment standards (Knight, 2004) and the attainment of 'universally' accepted or transferrable certificates of completion (Dickson et al., 2018; Hill, 2010; Renaud, 1974), the development of knowledge, competences, skills, attitudes and values relevant to the global economy (Knight and de Wit, 1999, as cited in Beck, 2011; Zha, 2003, as cited in Guo & Chase, 2011) became a focus. In this sense, supporting a nation's economic competitiveness and power (Stier, 2004, as cited in Beck 2011) along with (profit-focussed) educational institutions becoming or remaining economically viable (Guo & Chase, 2011; Knight, 2004) became economic drivers which do not resonate as strongly with the (initial and grand) ideological visions of IE discussed earlier.

In summary, IE in general and an IB education in particular, has often been embraced for its academic and economic benefits and advantages by individual stakeholders (parents, students,

teachers), school leadership, universities, and policy makers alike (Bunnell et al., 2022; Gardner-McTaggart, 2019; Guo & Chase, 2011; IB, 2016; Knight, 2021). The ideological vision is often considered more of a 'value-added' rather than a driving factor in the uptake of and interest in IE programmes (Lai et al, 2014; Parish, 2021; Tarc, 2009; Walker et al., 2016). The growing influence and presence of the IB is reflected in its numbers. In 2022, the IB comprised of over 5.500 IB World schools offering more than 7.500 programmes to over 1.95 million students globally. IB is present in 160 countries with 46.9% of its programmes in IBA, 30.3% in IBAEM, and 22.8% in IBAP (IB, 2022i). In November 2021, 16.804 DP candidates from 113 countries and 915 schools were registered (IB, 2021) and in May 2022, there were 168.035 DP candidates in 150 countries and 3.090 schools (IB, 2022j).

From an educational perspective, several themes have regularly surfaced. These include themes relating to an awareness of interconnectedness with oneself and others. This theme is rooted in and connects to one's own constructive sense of identity. Another theme has emerged from initiatives or documentation on IE and education for global citizenship, namely that of a willingness to act. A newly occurring theme, however, is that relating to an individual's ability to adapt effectively in diverse contexts and situations which will be identified throughout the next section. This identification of these themes also emphasises the role and value of education in developing conceptual understandings. Naturally, the deep thinking about purposes and aims of international and intercultural education have led to questions around how such aims are best realised. The next section focusses on approaches to IE, namely the means by which the aims and outcomes associated with IE are thought to be achieved.

## Section 2: Institutional Approaches to the Organisation, Teaching and Learning of International Education

### Internationalisation in Schools and Universities

When thinking about approaches to IE, internationalisation has been described as a process with a range of challenges and complexities centred around introducing international dimensions into different institutional areas of IE providers (Beck et al., 2011; Guo & Chase, 2011; Knight, 2021). In 2006, Deardorff criticised that "*few universities address the development of interculturally competent students as an anticipated outcome of internationalization*" (Deardorff, 2006: 241).

This is echoed by Trede et al. (2013) who argued that even if international programmes were (administratively) well organised, students were often unaware of learning aims associated with *global citizenship* or *intercultural competences* through the programme and that approaches to the development of such aims were superficial and ineffective (Trede et al., 2013). Apart from this, approaches to achieving the aims of IE are far and wide and there is not necessarily a clear divide in who or what can be called or (self-) assigned the label of IE (Hayden & Thompson, 2016). Therefore, there have been manifold attempts from a research perspective to categorise the approaches to IE (Beck et al., 2011; Guo & Chase, 2011; Hayden & Thompson, 2016; Knight, 2021). One such attempt refers to internationalisation on a spectrum with emphasis on ideology versus a focus on revenue at opposing ends which was first proposed by Matthews in 1988 (Hayden & Thompson, 2016). Sylvester (2005) proposes a matrix on which different approaches to the internationalisation of education can be organised and arranged according to their character and outlook. This matrix has opposing ends on the vertical axis ("*politically sensitive*" versus "*politically neutral*") and two opposing ends on the horizontal axis ("*Education for International Understanding*" versus "*Education for World Citizenship*") (Sylvester, 2005:145). In considerations of how the aims and purposes of international and intercultural education and with it greater intercultural understanding could be achieved, multiple approaches have emerged. Such approaches include, but are not limited to,

- adopting a specific ideology, ethos, mission or culture that accepts, respects and fosters intercultural perspectives and diverse values (alongside national allegiances) (Hayden & Thompson, 1995; Knight, 2004, 2021; Leask, 2012; Räsänen, 2007; Stier 2004, as cited in Beck 2011; Sylvester, 2005; Trede et al., 2013; Zha 2003, as cited in Guo & Chase, 2011)
- organisational, service or support elements and policies with international orientation (Arum and de Water, 1992, as cited in Sylvester, 2005; Beelen, 2012; Hayden & Thompson, 1995, 2016; Knight, 2021; Leask, 2012; Zha, 2003, as cited in Guo & Chase, 2011)
- adding international aspects or dimensions to curricula or course content or developing and offering (international) programmes, curricula or courses (Beelen, 2012, 2017, 2018, 2019; Guo & Chase, 2011; Knight, 2021; Leask, 2012; Rizvi, 2007)
- diversity or international character of the student and staff body (Canterford, 2003; Hayden & Thompson, 1995, 2016; Knight, 2004, 2021; Räsänen, 2007; Zha, 2003, as cited in Guo & Chase, 2011),

- an international focus on research, international partnerships and collaborations (Knight, 1995, as cited in Beck et al., 2011; Knight 2021)

- implementation of international pedagogies and practices (Knight, 2004, 2021; Zha, 2003, as cited in Guo & Chase, 2011) and a concern for "*deeper learning and human development*" (Stier, 2004, as cited in Beck 2011: 5)

- appropriate training, professional development, support and appropriate resources for teachers and academics/lecturers (Beelen, 2012, 2017, 2018; Leask, 2012)

- abroad studies and immersion experiences (Cushner, 2007; Jones, 2012; Sylvester, 2005)

The specific approaches adopted by (international or IB) schools, universities and other institutions in turn affect their character and organisation. Initially a typical international school tended to be private with features or characteristics including a diverse student body, a board of directors' representative of the school's nationalities, internationally focussed curriculum content and effective instructional practices and pedagogies (Hayden & Thompson, 1995). The International School of Geneva was considered to resemble the true character of an international school (Leach 1969 in Hayden & Thompson, 1995). Cole-Baker, the headmaster of the International School in Geneva at the time the IB was conceived, considered a diverse student body of utmost importance to developing intercultural understanding and only where this was not possible, such as in national schools, would an international curriculum serve to achieve similar aims (Hayden & Thompson, 1995). Unlike in international schools, the diverse student body of universities has been described as an underutilised 'resource' regarding internationalisation (Bond, 2003, in Guo & Chase, 2011). Instead, this diversity has rather been an incidental result of the commercialisation of internationalisation and has been criticised to merely serve the increase in income through numbers of (fee-paying) international students (Beck et al., 2011; Beelen, 2019).

In a similar context, namely diversification, the recruitment practices of international schools have been criticised to be too Western-centric. Here, for reasons often to do with the preferences of parents who select and pay for the education of a private International School, the recruitment of teachers with a Western education (and often or especially those who are native English speakers) tends to be more dominant (Canterford, 2003). In addition, teachers or academics are often not appropriately trained for the teaching and development of intercultural skills and attitudes in their

students (Beelen, 2012, 2018; Leask, 2012). This raises another concern, namely that these teachers carry, exhibit, exemplify and transmit the national and cultural values and management styles of the (national) system in which they were trained (Gardner-McTaggart, 2021b; Hayden & Thompson, 2016). To some, another issue are national overseas schools which – although they operate in a diverse intercultural context – offer typical national curricula to the student population. In this sense, their status as actual international institutions could be questioned (Belle Isle, 1986, as cited in Hayden & Thompson, 1995). Other important considerations in the context of funding and dominant cultural belief systems include the use and enactment of language policies, for example with regards to the choices for language(s) of instruction, dominant language use and acceptance (or rejection) of diverse languages (Garrett-Rucks & Jansa, 2020). Further to this, curriculum and subject choices within a school, for example the offer or non-offer of (optional) DP Arts-courses, are an important reflection of some of the educational beliefs of the school leadership, parents and students (Elpus, 2019; Parish, 2021). In international schools such (dominant) cultural beliefs have, however, been associated with a predominantly Western, Anglophone, white, male school leadership (Gardner-McTaggart, 2021a, 2021b).

## Internationalisation of Curricula

Throughout the second half of the 20th century, international or global education was increasingly adopted also by local national schools (often in the form of IB programmes) for a variety of reasons, including but not limited to the perceived academic excellence associated with an IB education or the diversification of the student body in national schools that needed to be addressed with more effective strategies (Hill, 2012, 2015). Furthermore, the international schools increasingly served national families in the host-locations (Hayden & Thompson, 2016). In such context(s) an international curriculum may be considered to be of much greater importance (Hayden & Thompson, 1995). A similar trend at universities, namely the need to internationalise locally, brought forth discussions around "*internationalisation abroad*" and "*internationalisation at home*" and with it the advocacy for internationally focussed curricula became representative of internationalisation processes as well (Beelen, 2012, 2018, 2019; Knight, 2021; Leask, 2012). Beelen (2012, 2017, 2018) argues that only a minority of students takes the opportunity to actually go abroad which leaves most students without the opportunity to develop the aforementioned necessary international and intercultural competences creating a disparity between students. In

response to this problem, internationalisation of curriculum is an approach that would benefit all students regardless of background or travel opportunities through "*the purposeful integration of international and intercultural dimensions into the formal and informal curriculum for all student within domestic learning environments*" (Belen and Jones, 2015, as cited in Beelen, 2018: 65).

But what constitutes the internationalisation of curriculum? UNESCO (1974) advocated for the adaptation of content towards a multidisciplinary, integrative problem-solving approach to teaching and learning with focus on the intricacies of our interconnectedness and international interdependence in global issues and challenges (UNESCO, 1974; Hill, 2015). According to Bond (2003, as cited in Guo & Chase, 2011) there are three types of approaches to internationalisation of curriculum or content. The simplest but also most limited approach entails adding materials or tasks without re-developing the general content. The most common approach may include introducing international content, materials and students' intercultural backgrounds and experiences into studies and tasks. The most complicated but also the most impactful approach includes the re-development and change of curricula in order to engage with, understand and alternate between diverse perspectives and views throughout the studies (Bond, 2003, as cited in Guo & Chase, 2011).

With an increasing emphasis on the internationalisation of programme, curriculum and course design, there needs to be a shift in ownership of internationalisation from administrators to academics and teachers who, according to Beelen (2018, 2019), had for a large part been left out of the internationalisation process. What is problematic, however, is that few academics and teachers have been specifically trained to respond effectively to the diversity in their classrooms, to design internationally and interculturally focussed courses, or to teach international and intercultural competences and to develop these in their students (Beelen, 2018, 2019). Apart from pedagogical and content-related aspects, the increasing diversification of the student body is a reality that teachers need to become better prepared for (Cushner & Mahon, 2002). The advocacy further goes towards a more integrated approach of the initiatives listed above (e.g. institutional policy, diverse student body, etc.), to strengthen the internationalisation of curriculum, to include teacher-training and development and to actively engage teachers and academics in and as part of the internationalisation process. Furthermore, a call for greater contextualisation of

internationalisation with better consideration of location, the type of programmes and courses in question, the nature and character of the staff and student population has emerged (Beelen, 2012; Leask, 2012).

## The IB Approach to the Internationalisation of Programmes and Curricula

As identified above, the IB offers four programmes of IE to students across the age ranges of 3-19 years. The PYP[19] emphasises three strands of education, which focus on the student, the teaching and learning, and the wider community. This programme is rooted in inquiry-based, concept-based and transdisciplinary approaches to teaching and learning which employs a focus on six transdisciplinary themes through which content is accessed. In the PYP students' unique identities, interests and competences are acknowledged, along with the agency that students hold in their own learning and development. Furthermore, the PYP embraces the value and importance of the wider community in students' learning and development. The programme emphasises the development of five fundamental learning skills, including *thinking, communication, research, self-management* and *social* skills (IB, 2022b). The MYP[20] works with a focus of guiding concepts and contexts across eight subject groups and offers a minimum of one interdisciplinary unit between two subject groups. MYP students complete an independent project and engage themselves proactively in the community through service work (IB, 2022c). The CP[21] programme offers students the combination of an IB-education in combination with employment-oriented settings. Students engage in at least two courses from the DP and complete a core of four inter-related elements, including *personal and professional skills* (focussing on specific career-oriented competences and attitudes), *service learning* (engagement with work in and for the community), a *reflective project* (an independent project completed over time with focus on ethical issues in work-related situations), and *language development* (offering access to additional language learning and development). Aside from this, students also have the opportunity to engage with specific courses focussed on the development of specific skills and competences related to potential fields of careers and work (IB, n.d.-b).

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[19] Primary Years Programme for students aged 3-12 years.
[20] Middle Years Programme for students aged 11-16 years.
[21] Career-related Programme for students aged 16-19 years.

In the DP[22] students select courses from six subject groups. The subject groups include *Studies in language and literature, Language acquisition, Individuals and Societies, Sciences, Mathematics,* and *The Arts.* Students select one subject per group with a total of three subjects at higher level (HL) and three subjects at standard level (SL) (IB, 2022e). However, the Arts are an optional subject group and students may – instead of selecting an Arts subject – opt for an additional subject in the Languages, Sciences, or Individuals and Societies groups instead. Where students opt for an Arts subject they "*explore the diversity of arts across time, place and cultures*" (IB, 2022f), an important aspect of education towards intercultural understanding. Students who take the Diploma Programme also complete three mandatory elements at the core of the programme, which include the subject TOK (Theory of knowledge: a course about the nature and essence of knowledge and knowing), the EE (Extended essay: an autonomous research essay of 4000 words), and CAS which contains extra-curricular engagement within three strands related to *Creativity* (creative or arts-related activities), *Activity* (sports, physical and health related activities), and *Service* (volunteer-work) (IB, 2022e).

Alike the enhanced opportunities to engage with non-traditional methods afforded to or associated with IE (see above), IB's pedagogical stance contrasts traditional pedagogies (Tate, 2013). A deeper discussion on the divergent views between traditional and progressive pedagogies is outside the scope of this chapter, but a critical discourse can be found in Claxton's recent book *"The future of teaching and the myths that hold it back"* (Claxton, 2021). In summary, IB's approaches to teaching and learning have been influenced by important educators, including but not limited to J Dewey (IB, 2017, 2019a), LS Vygotsky (Allan, 2011; IB, 2014c, 2019a), J Piaget (IB, 2017, 2019a), HL Erickson and H Gardner (IB, 2019a). Generally speaking, however, the IB is associated with a holistic education approach (Hill, 2015; IB, 2019a, 2019b; 2022g; Tate, 2013), along with concept-based learning (Erickson, 2012), critical thinking and notions of the development of the whole child (Hill, 2015; Tate, 2013). Interconnected with the holistic pedagogical approach are two elements, namely the development of the ten LPAs and the approaches to teaching and learning in the IB. Together, these elements are considered to foster the transcending educational aim of an IB education: the development of IM (IB, 2019a). In

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[22] Diploma Programme for students aged 16-19 years.

practice, however, a wide range of approaches may be found, and it is not uncommon for teachers – especially at the DP level – to divert to traditional practices under exam pressures and the drive for academic achievement (Lai et al., 2014; Hill, 2012). The fundamental elements of IB's educational philosophy are summarised in the figure below.

*Figure 1: Fundamental aspects of IB educational philosophy*

- to develop internationally minded students, a foundational element of an IB education

**International Mindedness**

- to develop ten learner profile attributes in IB students which contribute to the evolving chracteriscitcs and values of internationally minded people

**The Learner Profile**

**Holistic Education**

- "*a broad, balanced, conceptual and connected curriculum*" (IB, 2019a: pg. 1)

**Approaches to Teaching and Learning**

- to deliver the IB's educational vision and "*empower IB students of all ages to become self-regulated learners*" (IB, 2019a: pg. 6)

An important aspect of the holistic educational vision and the development of the whole child (i.e. the IB's pedagogical aspirations) is the balance between the cognitive and academic progress and the affective, emotional development of students along with other elements, such as the physical, ethical, aesthetic, cultural and creative development of IB learners. Furthermore, learning is associated with a life-long and ongoing learning process and real-life contexts, for example outside of classrooms or schools within the community (Hare, 2010; IB, 2019a, 2022g; Johnson, 2019a, 2019b; Walker et al., 2014). Likewise, the IB highlights – along with the cognitive development – the importance of "*students' social, emotional and physical well-being*" and with ensuring that students learn to "*respect themselves, others, and the world around them*" (IB, 2019a: 3) which are important aspects of developing IM.

In the context of the holistic education paradigm, it is important to introduce the focus of the development of three dimensions, which do not feature in recent IB documentation, but which carry conceptual relevance and are (to a limited degree) anchored in the LPA *balanced*. The dimensions include intrapersonal, interpersonal and global connectedness (Hare, 2010; Johnson, 2019a, 2019b). The intrapersonal dimension concerns itself with self-realisation and the understanding of oneself along with the personal responsibility for oneself, one's learning and development (Hare, 2010; Johnson, 2019a, 2019b). According to Johnson (2019a, 2019b) the intrapersonal dimension should also be fostered by encouraging students to *"imagine and create"* (Johnson, 2019b: 9). Eisner (2002) considers this ability to imagine and create – particularly in and through the Arts – as inherently human and as a catalyst to develop communities and cultures. The interpersonal dimension refers to understanding the 'other', or 'humankind'. It also relates to effective collaboration and building meaningful social connections, relationships and skills (Hare, 2010; Johnson, 2019a, 2019b). Global connectedness is focussed on seeing the bigger picture, drawing connections and understanding our interconnectedness with others and the planet. The dimensions also address problem-solving, consideration of diverse perspectives and the complexity of life and the world (Delors et al., 1996; Hare, 2010; Johnson, 2019a, 2019b), which connect to the expressed aims and objectives of IE identified throughout this chapter.

Needless to say, that an approach of broad and connected learning along with a focus on personal development, and the development of real-life skills, independence and interdependence, ownership and responsibility, needs to be realised across all programmes, curricula and assessments, and requires the support of the entire learning community including teachers, students, parents, school leadership, funding bodies, etc. (Hare, 2010; Kidson, 2021; Tarc, 2018). Throughout the years, the IB has wrestled with achieving balance between its ambitious educational and philosophical vision and practical pressures, including finance and funding, assessment realities, demands for a globally recognised university entrance certification, as well as matters of access, representation and influence, to name but a few. Similar to the impact of economic and political pressures and conflicting interests on IE in general, the philosophical stance of the IB experienced compromise, reorientation and repositioning under those pressures (Hill, 2010, 2015; Tarc, 2009).

## The Focus and Purpose of International Curricula

Considerations of approaches or means to access and unlock intercultural knowledge and understanding, skills and competences, attitudes and values are also impacting reflections on programme set-up and curriculum development. For example, the importance of including cross-cultural studies and communication, intercultural affairs, comparative studies, and the study of interrelations and interconnectedness into programmes with an international outlook has been highlighted (Hayden & Thompson, 1995; Sylvester, 2005). In such approaches, the study of culturally different people and contexts are the focus and here a concern has been the reinforcement of difference rather than that of a shared and common humanity (Anderson and Becker, 1976, as cited in Sylvester, 2005). More specific curriculum- or course-related directions include the study of power and privilege, animosity and uncertainty, ways to organise societies globally (as opposed to nationally) (King, 1971, as cited in Sylvester, 2005) and interconnectedness and interdependencies of people and nations across the globe (Merryfield et al., 2008). Concerns further extend to the continued predominant focus of education on the cognitive and knowledge-oriented teaching and learning as opposed to a focus on the development of attitudes and values along with skills of interpersonal and cross-cultural interactions, communication, collaboration and problem-solving skills in global contexts (Cushner, 2007; Cushner & Mahon, 2002; Hill, 2007; Sampatkumar, 2007).

Values-based education is also the focus of arguments presented by Biesta (2020, 2021) who cites Adorno (1971) in saying that a fundamental purpose of education is to prevent atrocities of genocide as associated with the Auschwitz massacres (Adorno, 1971, as cited in Biesta, 2021). Biesta (2020) advocates a shift from a scientifically focussed (evidence-based) outlook towards a humanistic (values-based) worldview in educational approaches. With this, Biesta (2020) argues that values are what gives education sense, purpose and direction, while evidence can merely provide answers to, for example, what might work effectively in educational contexts, and is as such offering a limited prospect. In contrast to child-centred or curriculum-centred education, Biesta (2021) suggests a new educational perspective or approach, namely that of a world-centred education. His thinking is less concerned with IE per se, but for an education in general that is focussed on the present realities and on-going challenges of life and the world. Biesta proposes that education must foster an altruistic and harmonic co-existence *in* and *with* the world (meaning

the physical world and societies) as opposed to self-centred and self-serving (often economic) ideas and interests. In contrast to constructivist views, Biesta (2021) supports the view that learning happens through observation or tuning into the world, which exists despite our presence or interpretation. In other words, the world may be studied and may be the focus of our sense-making but cannot be defined by our existence. This leads to another important point, namely that education needs to lead to the realisation of responsibility and respect for that which exists in its own right and which we do not own (Biesta, 2021). This view resonates with the ideological values and ideas of IE as expressed in a research study from Iran:

> *"The concept of intercultural learning and dialogue lays the foundation for a shifting sense of one's place in the global arena, from the egocentric and individualist to the concept of integral global diversity, which privileges tolerance, solidarity and a mutual sense of understanding"* (Jassabi, 2004, as cited in Jones, 2012: 38).

The shifting of perspectives and views towards a renewed outlook of our purpose and place in relation to the world and to others is a deep, meaningful and substantial theme for IE.


This thinking is echoed by Sampatkumar (2007) who also stresses the significance of values-based education. He stipulates that there are common and shared values found across all world-religions and urges that values must "*not remain an intellectual residue but are integrated as traits of one's character*" through a process of practice, reinforcement and development (Sampatkumar, 2007: 77). The idea of shared morals or values and our responsibility towards all of humanity is also articulated by Rizvi (2007). The notion of values and ethics is further supported by Räsänen (2007) who argues that by definition, education is a values-based profession. Räsänen believes that regardless of whose values (e.g. individual, personal, communal, national, etc.) or what values, values are being transmitted in educational settings. Therefore, he advocates for approaches that include voices from diverse communities in negotiating and agreeing on the values that will be shared. He further stresses the importance to clearly articulate and justify any values that are being transmitted through education especially in multicultural, but also changing or evolving contexts. Values and ethics, such as being principled, moral, caring and showing empathy, are discussed in the context of universal applicability. Human dignity, respect and 'treating others as one would like to be treated' is considered as a baseline. Fundamental competences for ethical and principled behaviours includes sensitivity, perspective-taking, critical thinking about topics, such as

interconnectedness, power and privilege, as well as courage towards ethical decision-making (Räsänen, 2007).

Apart from values, morals and ethics, the development of appropriate attitudes and skills are at the heart of IE (Rizvi, 2007; Sampatkumar, 2007), whereby such attitudes are associated with humility and impartiality "*towards religion, culture, social customs and political institutions different from our own*" (Sampatkumar, 2007: 74). Fostering the right attitudes and skills would ultimately lead to

> *"understanding […] the ways by which global processes are creating conditions of economic and cultural exchange that are transforming our identities and communities; and that reflexively we are contributing to the production and reproduction of those conditions, through our uncritical acceptance of the neo-liberal imagery"* (Rizvi, 2007: 400).

With this, Rizvi argues for a critical approach in the context of IE and internationalisation of curriculum which acknowledges interconnectedness and the changeability or fluctuation of cultures, and which also fosters ethical behaviours and respect in intercultural contexts. Such understanding, attitudes, skills and behaviours are enhanced through reflection and imagination (Rizvi, 2007).

### Study Abroad and Experiential Learning

Another widely discussed and advocated pathway towards the effective development of intercultural competences, world-mindedness and global citizenship, along with their associated skills and attitudes and ultimately better employability, is that of study abroad or immersion experiences (Alred & Byram, 2002; Cushner & Mahon, 2002; Hill, 2012; Jones, 2012; Larsen, 2016; Räsänen, 2007; Rizvi, 2007; Sylvester, 2005; Wynveen et al., 2012). Study abroad experiences have been associated with experiential learning processes which are crucial in developing intercultural understanding through direct engagements with a new and different culture (Bruckner, 2016; Cushner & Mahon, 2002; Griffin & Spence, 1970; Sylvester, 2005). Such experiences further foster flexibility, adaptability and personal development as engrained beliefs of the world are challenged and adjusted (Cushner & Mahon, 2002; Cushner, 2007; Sylvester, 2005; Zhang & Gibson, 2021). Other benefits include reduced prejudices, stereotypes and ethnocentrism in exchange for greater cross-cultural sensitivity, 'attuned-ness' to diverse perspectives and greater awareness of different cultural contexts (Cushner & Mahon, 2002).

Furthermore, such immersion experiences are also associated with increasing engagement and interest in environmental issues and global politics (Cushner & Mahon, 2002; Wynveen et al., 2012; Zhang & Gibson, 2021). In this context, study abroad has been found to foster cycles of sustainability thinking, attitudes, and values which lead to appropriate environmental action as well as life, career and travel choices (Zhang & Gibson, 2021).

In relation to IM, a qualitative study found that participants associated the cognitive development of IM with experiences or interactions and relationships with diverse others (Bruckner, 2016). Likewise, the central role of personal experiences with diversity in developing IM or associated constructs has been highlighted (de Oliveira Andreotti et al., 2015; Merryfield et al., 2012). Furthermore, according to participants, the understanding and development of one's own identity are fundamental. In this context, international travel and living abroad, as well as a diverse student population have been associated by respondents with experiences and interactions that enhance the development of IM in the qualitative survey study by Bruckner (2016). Criticism concerning study-abroad experiences include that they are wasteful of resources, that they do not challenge ingrained prejudices (Beck et al., 2011; Rizvi, 2007), that they do not actually advance intercultural competences (Root & Ngampornchae, 2012), that they are not equally available to everyone (Beelen, 2012, 2017, 2018, 2019; Rizvi, 2007), or that their outcomes or impact are not as clear as one would hope (Rizvi, 2007). Relating to the IB, it has been noted in this context, that actual experiences are limited to those who are affluent enough to afford these and that effective alternatives are needed for those who do not have access to international travel (Bruckner, 2016). To remedy some of the challenges associated with experiential learning, schools or students with limited resources and travel opportunities are finding other ways to connect with the world. Alternative approaches to actual experiences have been reported, for example the use of literature, technology or a proxy[23] to connect with diverse others (Gaffrey, 2018; Merryfield et al., 2012). However, while such initiatives and strategies may be helpful in capturing student interest, any

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[23] For example, schools or students with limited resources and travel opportunities are finding other ways to connect to the world. To develop understanding, respect and tolerance for other cultures, one PYP teachers used 'travel buddies' (toys that travel to different places with other people) to help make connections of 2nd grade students with different geographic locations. Students learn about geography, history, arts and culture of the world as pictures and stories are sent back of the travel buddies roaming the world. The teacher and students track the journey of the travel buddy via maps, photos, logs, etc. The findings generate questions and research which connect to the PYP themes (Gaffrey, 2018).

impact on the development of IM is at best anecdotal. In fact, some strategies intended to 'replace' travel opportunities or personal engagement with diverse others have been associated with a type of superficiality, lip-service or tokenism (Bruckner, 2016) also described as IM *lite* (Skelton, 2007).

Furthermore, courses of intercultural training administered to people who were preparing for abroad experiences or visits, may they be study- or work-related, have been criticised for their oversimplification and generalisation which reinforced, rather than countered, stereotypes, division and value judgements (Fleming, 2021). Furthermore, short-term programmes and experiences have been criticised for their limitations regarding academic tenacity and lack of potential for cultural immersion (Rizvi, 2007; Tarrant, 2010). In contrast, studies showed that – if effectively planned and effectively guided by engaged educators – even short-term experiences can have a positive impact on students' as well as staff development (Jones, 2012; McKeown, 2009, as cited in Tarrant et al., 2011; Wynveen et al., 2012). Furthermore, longer and sustained immersive experiences to maximize the outcomes have been advocated for in teacher training courses (Cushner & Mahon, 2002; Cushner, 2007). These immersion experiences are associated with actual overseas student teaching experiences through which students learn to connect directly to and with different cross-cultural contexts. It is a

> "*unique opportunity for intercultural development as it involves both physical and psychological transitions that engage the cognitive, affective, and behavioral domains. And this experience occurs twice – once during entry into the host culture and then again upon reentry into the home culture*" (Cushner, 2007: 29).

Such immersion experiences go far beyond the limitations of cognitive learning mentioned earlier. Instead, they have shown to foster skills, attitudes and values associated with intercultural understanding and competence including, but not limited to, empathy, perspective taking, communication and collaboration skills, sensitivity and openness, confidence, adaptability, flexibility and cross-cultural respect and mediation were strengthened (Cushner & Mahon, 2002; Cushner, 2007).

## The Process of Developing International Mindedness

Regardless of the approach to international or intercultural education, when thinking about how qualities associated with intercultural or international understanding and related concepts are developed, process-oriented learning has been an important focus. It has been highlighted, that the development of global or intercultural competences is an ongoing and life-long pursuit which can

be supported by education (Ang et al., 2015; Hammer et al., 2003; Fantini et al., 2001; Merryfield et al., 2008; OECD, 2018; Quappe & Cantatore, 2007). In the same way, the continued and progressive process of developing intercultural competences has been associated with the demand for time-investment (Mahon & Cushner, 2014). Similarly, other authors believe that the development of intercultural competences, knowledge and skills are dependent on sustained cross-cultural experiences, interactions and exposure (Alred & Byram, 2002; Bennett, 1993; Byram, 2009; Cushner & Mahon, 2002; Cushner, 2007; Brislin & Yoshida, 1994; Wilson, 1993). Likewise, Deardorff (2004, 2006) suggests that ICs are manifested on a spectrum which changes over time, meaning specifically that the development of IC is "*an ongoing process and not a direct result of solely one experience, such as study abroad*" (Deardorff, 2006: 259). An example of a spectrum was presented by Hammer, Bennett and Wiseman (2003) who identified the stages of the spectrum as

- "denial": experience and interest in only one culture (i.e. one's own) with no acknowledgement of other cultures,
- "defense-reversal": other cultures are recognised but not accepted (i.e. rejected) with the notion that one's own culture is the only true or acceptable culture, notions of 'us' versus 'them', this may also apply when another culture is adopted and elevated to the status of one's initial culture,
- "minimization": generalisations and categorisations that can be aligned with one's own culture or perspectives,
- "acceptance": realisation and acceptance of one's own views, perspectives as one of many meaning it is accepted that diverse manifestations of culture exist although there can still be negative perceptions of such different perspectives and views,
- "adaptation": adjustments to other cultures that are contextually acceptable which expands not just to how culture is viewed, but also to behavioural aspects, and
- "integration": expansion of one's views to integrate different perspectives and to be able to navigate across and between cultures along with the realisation of one's own "cultural marginality" (Hammer et al., 2003: 424-5).

In contrast, Hill (2007) describes a process of developing IM from knowledge and skills*, which he associates with *cognitive pragmatism*, towards attitudes and (humanitarian) values, which he labels

as *affective idealism*. Hill suggests that over time the "*cognitive importance of the pedagogy decreases*" while "*the attainment of international education values increases*" and that "*it is at the level of values – at the attitudinal level – that the aims of international education are realized*" (Hill, 2007: 35). However, it is important to be reminded that any process of developing IM or associated constructs cannot be understood as a linear progression (Hill, 2007). Rather, it is in the attempt to express, describe and represent such processes that apparently linear progressions emerge, which are naturally not fully reflective of the complex underlying mechanisms and interactions of the actual processes. From a critical pragmatist position, however, the goal is to increasingly identify and uncover such underlying mechanisms. The (simplified) representation, to allow for better understanding, will be associated with limitations that ongoing research sets out to minimize. In conclusion, it is interesting to note the important role that (non-linear and complex) processes play in the different areas of internationalisation, be it the internationalisation of education institutions, in curriculum design, in learning experiences, as well as in the development of intercultural understanding and competencies in individuals.

## Summary

As this section has shown, the field of IE has been evolving and expanding into multiple directions. Such directions include, but are certainly not limited to, critical thinking to increase our understanding and conceptualisation of constructs related to the field of international and intercultural understanding, as well as active initiatives towards internationalisation of education with increasing appreciation of our interconnectedness. These developments and trends were aiming to find and consolidate answers to what needed to be achieved (e.g. the diversification of the purposes and aims of IE) and how this was to be achieved (e.g. through approaches and practices in international and global education). Through an overview of its historical and contextual development and challenges, this section has identified some debates and focus points of IE. One is that of its position in global contexts, meaning discussions around the influences of educational approaches across time and place and the (counter-)influences and value of IE in different cultures. In this context, the intentions of some IE initiatives have been criticised and questioned and considerations of the relevance of IE in today's global and culturally diverse society are ongoing. These debates also extend to an IB education for IM. Other considerations relate to the ebb and flow of political and economic situations and events, the sentiments of

patriotism and nationalism, and the impact of power relations and imbalances, and global inequalities on the demand, development and evolution of IE. Finally, through the historical and contextual overview of the purposes, aims and concepts related to IE four domains have emerged in which the construct of IM is situated, namely the development of knowledge, skills, attitudes or dispositions, and values.

Furthermore, four catalysts that are of importance in developing intercultural understanding and realising a more peaceful and just world emerged from the literature. These included (1) the need for an awareness of our connectedness with others and the environment, (2) the ability of individuals to effectively adapt to diverse contexts and situations, (3) a sense of (global and interpersonal) responsibility that leads to a willingness to take positive action and to collaborate cross-culturally in the face of local and global problems or challenges, and (4) the notion that developing intercultural understanding and most associated concepts is an ongoing, evolutionary, non-linear process in which education plays an important role. It is in this context that IM is situated. The next chapter will discuss the conceptualisation of IM as it emerges from the documentation of the IB and the current reality of IM as seen in practice and in research.

# Chapter 3: International Mindedness in Theory, Practice and Research

## Introduction

This chapter reviews the diverse understandings and conceptualisations of IM in theory, research and practice. The construct is introduced through views on IM that emerge from research and practice in section one. In section two, the conceptualisation of IM as understood by the IB, researchers and practitioners are addressed. At first, the construct is unpacked in the context of current IB documentation to show how this foundational principle is ideologically envisioned and framed by the IB. Then, conceptualisations outside IB documentation are introduced and a connection is drawn on how these relate to IM. Within the section, terms and concepts from the wider field are introduced in relation to the different conceptualisations of IM. However, while some of these terms and concepts have been extensively discussed and debated, it is beyond the scope of this chapter to go into a deep analysis of conflicting views to some of these concepts. Rather, the section aims to provide a contextual frame within which IM is situated. In section three, the conceptualisation that was adopted for this study will be introduced. In this context, reference is made to the role of Arts education in the development of respective (sub-)dimensions and characteristics of IM. In line with the adopted conceptualisation a quantitative instrument to measure IM was developed based on four existing surveys. The background and development of this survey is also presented in section four of this chapter.

## Section 1: International Mindedness in Practice

IM is an aspirational concept which is described as "*a way of thinking, being and acting that is characterized by an openness to the world and a recognition of our deep interconnectedness to others*" (IB, 2019a: 8; 2019b: 2) and "*is central to the continuum of IB programmes*" (IB, 2014b: 2). Furthermore, IM is developed holistically in students throughout the IB programmes and as such "*is not a matter of acquiring isolated skills but of becoming an internationally minded person-holistically understood*" (Boix Mansilla, 2019: 5). Beyond that, the meaning of IM according to the IB is 'multifaceted', 'not fixed' and may be understood or accessed in various forms especially across diverse cultural contexts (IB, 2019a). In practice, IM has been interpreted and described as a comprehensive idea and multifaceted construct (Haywood, 2007; Hill, 2015; Skelton, 2007; Tarc, 2018) which comprises holistic qualities, characteristics and competencies manifested in

international or intercultural awareness and sensitivities (Hill, 2015; Lai et al., 2014; Savage, 2017). However, others have pointed out an overemphasis of the construct on the 'mind' (Metli et al., 2019). In ideological terms, IM has been coined as 'noble', contextually flexible and focussed on character-building (Hill, 2015). The construct has further been associated with an appreciation of diversity and diverse perspectives, tolerance and respect (Hill, 2015; Lai et al., 2014; Savage, 2017) as well as a willingness to act on global issues (Baker & Kanan, 2005; Belal, 2017; Castro et al., 2015; Hill, 2015; Lai et al., 2014; Hacking et al., 2018; Merryfield et al., 2012). IM has also been described as an educational approach that promotes specifically open-mindedness, empathy, ethical and critical thinking (Hill, 2010, 2015; Savage, 2017) as students engage with global and intercultural issues and perspectives with the idealistic aim to create a better world (Hill, 2010, 2012, 2015; IB, 2019a, 2019b, 2019c, 2022a, 2022g; Tarc, 2019). In this context, Hill (2012) suggests that

> *"[...] education for international mindedness is the study of issues which have application beyond national borders and to which competencies such as critical thinking and collaboration are applied in order to shape attitudes leading to action which will be conductive to intercultural understanding, peaceful co-existence and global sustainable development for the future of the human race"* (Hill, 2012: 259).

It is important to note in the context of earlier discussions that IM has an ideological, rather than an economic focus and with this poses an (intrinsic) contradiction to the aim of some international education institutions (e.g. schools, universities) that fixate on revenue and economic growth (Hill, 2015). In light of this Hill states:

> *"IM is a concept to be admired; it has moral fiber and a generous character. Therefore, its main focus is not commercial products and services, but the international agreements concerned with human rights, sustainable development, bio-ethics, etc. produced by supranational bodies such as the UN and its agencies, the European Union, the Geneva Convention governing treatment of prisoners of war of the International Red Cross and Red Crescent, and the work of many NGOs toiling in these and similar fields"* (Hill, 2015: 221).

However, research shows that due to the diversity of contexts in which IM is implemented and explained, definitions and interpretations vary widely (Cause, 2011; Hacking et al., 2018; Haywood, 2007; Hawley, 2017; Hill, 2015; Metli & Lane, 2020; Savage, 2017; Savva & Stanfield, 2018; Tarc, 2018). It is this lack of unified definition that has attracted criticism despite attempts to provide more specific descriptions of what being internationally minded entails (Cause, 2011; Gunesch, 2007; Haywood, 2007; Tarc, 2018). The lack of specificity has also been identified as

an inhibitor to effective implementation at the classroom level and is especially challenging to novice teachers (Lai et al., 2014; Ryan et al., 2018; Tocci et al., 2021). Nevertheless, this 'looseness' has to some extent been intentional and necessary, given the diversity of contexts in which an IB education is implemented in schools across the globe meaning that due to the flexibility of the construct, IM may be implemented in various contextually and culturally appropriate forms (Hacking et al., 2018; Hill, 2014, 2015; Singh & Qi, 2013; Sriprakash et al., 2014). Some even argue that in order to be culturally relevant, the construct needs to be opened up further (Bittencourt, 2020). The concern over the lack of a shared or unified curriculum for IM, as opposed to a contextual interpretation of IM and the IBLP, is echoed by Castro et al. (2015). Another concern is that IM – a complex and intricate concept – is being oversimplified (*IM lite*) in educational contexts and in the process interpreted or implemented incorrectly (Skelton, 2007). Ultimately, this fundamental aspect of an IB education "*may not be achieving its potential depth of realization in IBDP programmes*" (Lai et al., 2014: 82).

Another criticism is concerned with IB's academic and economic outlook creating tensions and pressures as discussed in chapter two. Furthermore, there remains a research gap in understanding how IM is developed (Cause, 2011) and in approaches to reliably evidence, measure and assess the development of IM in school contexts (Bunnell, 2019; Dickson et al., 2018; Mahon & Cushner, 2014; Metli et al., 2019; Metli & Lane, 2020). The lack of assessment is further associated with a lack of support from authorities and from parents whose focus is on academic results, rather than on character development (Lai et al., 2014; Roberts, 2013). In response to this, Hill (2015) argues that, as IM is represented in DP guides, it is consequently demonstrated in (some) exam papers. In an attempt to pin the construct down, Haywood (2007) suggests focussing on educational outcomes, rather than the educational process of developing IM. In this context, he advocates for setting learning objectives which are transferrable to different schools and cultural contexts along with the development of age or developmentally appropriate curricula for and assessments of IM (Haywood, 2007). Ultimately, concerns are being articulated, that the pressures described above lead to IM – a foundational element of IB philosophy – being neglected (Parish, 2021), left to chance (Cause, 2009), misdirected (Skelton, 2007), or (in the worst case) fully ignored (Lai et al., 2014).

**Implementation, Practice and Outcomes**

Along with the understanding of IM across schools and teachers, the understanding, implementation, practices and outcomes associated with an education for IM are varied as research has shown (Cause, 2009, 2011; Gardner-McTaggart, 2021a; Hacking et al., 2018; Kidson, 2019, 2021; Lai et al., 2014; Parish, 2021; Ryan et al., 2018; Tocci et al., 2021). The following two passages will look at research findings regarding the impact of school type, socio-economic background, gender, school ethos and teacher background on the development and implementation of IM in practice.

*Impact of School type, Socio-economic Background and Gender on the Development of IM*

Parish (2021) conducted a comparative case study with two schools, a private IB school in Norway and a state funded IB school in Poland which offered the IBDP next to the national curriculum. The study aimed to investigate the schools' policies and approaches to teaching and learning of human rights. The outcomes of the study showed that there was little guidance on the teaching and development of understanding or competencies for human rights from the IB. The two schools differed in school ethos which may have impacted the schools' commitment to human rights development, for example an emphasis of economically motivated academic aims in the Polish school versus a stronger emphasis of ideological aims in the Norwegian school. Furthermore, school context (i.e. a less diverse student population in the Polish school versus a more diverse student population in the Norwegian school) was suggested to have influenced the human rights development within each school. The findings showed that students from the private IB school in Norway demonstrated higher levels of human rights related competencies than their peers from the state funded IB school in Poland (Parish, 2021). In a similar context, socio-economic and class background as identified through attendance of or affiliation with a specific type of school, namely one private versus one state school in Ecuador, impacted students' perceptions of values and purposes of IM. Students who were from lower socio-economic backgrounds (i.e. students attending the state school) accredited less meaning and value to IM and its impact on their future lives than students from higher socio-economic backgrounds (i.e. students attending the private school), who associated the construct with a catalyst towards a desired future global lifestyle (Bittencourt, 2020). Likewise, a qualitative study with one private (titled 'elite' by the authors) international school in Asia Pacific suggests that students in this type of school are particularly

well positioned to associate with and develop the construct of IM (Bunnell et al., 2022). However, a study conducted by Metli (2018) comparing the development of IM in students from a state funded national IBDP school with a more homogenous student population and a private international IBDP school with a more diverse student population did not yield the same results. Here, neither of the schools demonstrated statistically different developments of IM (as expressed through intercultural understanding and global engagement) in their students (Metli, 2018, 2021).

Baker & Kanan (2005) conducted a study with a total of 270 students from three types of schools including public, magnet and international schools in Doha, Qatar. Findings showed that while female students demonstrated statistically significant higher levels in the three for this study identified dimensions[24] of IM, school type did not affect the development of IM as much. All students, regardless of exposure to an international education, developed in two identified dimensions of IM. However, international school students did attain higher levels in the dimension of *awareness of other cultures* (Baker & Kanan, 2005). A similar finding was shown by Belal (2017) who conducted research in an international school in Egypt through interviews and a focus group combined with document analysis with students, teachers, alumni and school administrators and leadership. The study showed that participants did not associate the development of IM, development of citizenship (global or local) or engagement with the local community with participation in the IBDP, but rather credited this particularly to a diverse student body (Belal, 2017). In contrast, an IB-commissioned study conducted by Gándara et al. (2021) on global mindedness – a construct closely connected to IM on the basis of their shared dimensions of intercultural understanding, multilingualism and global engagement (Singh & Qi, 2013; Gándara et al., 2021) – in the IBDP found that second year DP and CP students from 6 countries (Australia, Germany, Japan, Mexico, Spain, and the USA) had statistically significant higher levels of global mindedness than their non-IB peers in the same countries. Furthermore, in all countries, except Japan, second year DP and CP students also showed higher levels of IM than first year DP and CP students, suggesting that the engagement with the DP or CP would contribute to this development although a causal relationship was not established by the study. Affirming the gender-related findings of earlier studies (Baker & Kanan, 2005; Demìrcìoğlu & Çakir, 2016; Mahon & Cushner,

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[24] These dimensions included awareness of other cultures, universal affiliation, and cultural tolerance (Baker & Kanan, 2005: 338).

2014), this study also found that female, non-binary and gender non-conforming participants scored higher in global mindedness than male participants (Gándara et al., 2021). Similar findings were evident in a study that compared DP students from four countries with students that did not part-take in the DP in Turkey. While there was no difference between DP students from different countries, DP students from Turkey had greater scores in intercultural competence than non-DP students from Turkey and with regards to gender – similar to other studies – female students scored higher in intercultural understanding than male students (Demìrcìoğlu & Çakir, 2016).

### *School Ethos and Teacher Understanding*

School ethos, school leadership and school expectations, along with local and national requirements, were also considered impactful to how IM was embraced by a school and school community (Gardner-McTaggart, 2021a; Kidson, 2019, 2021; Lai et al., 2014; Parish, 2021; Tarc, 2018). The impact of lack of resources and effective school support were also identified as an inhibitor to the implementation of IM by Lai et al. (2014). Similarly, the impact of resourcing was discussed by Kidson (2019, 2021) who found that, while the ideology of IM and the global outlook of the IB were important aspects for principals (Kidson, 2019), the implementation was challenged by the split of resources and meeting the different demands of local and national government or education authority requirements and the costs and requirements of delivering the IB curricula (Kidson, 2019, 2021). Furthermore, a number of studies discussed the importance of implementation strategies for the integration of IM into curricula (Hacking et al., 2018; Hill, 2007; Metli et al., 2019; Skelton, 2007), pedagogy, learning environments (Hill, 2007), teachers' example and commitment (Hill, 2007; Metli et al., 2019), proactive engagement with the community, experiential learning activities and exposure as an important catalyst in developing IM in students (Hill, 2007, 2015; Metli et al., 2019). In this sense, assumptions that IM may be developed merely by absorption or 'osmosis', for example by virtue of a diverse student population or adopting an IB programme, were contested by research findings (Bruckner, 2016; Metli et al., 2019; Metli & Lane, 2020; Metli, 2021; Savva & Stanfield, 2018). Furthermore, considerations relating to the needs of the learners and their prospective lives in the context of the global, social, environmental challenges they will be facing have been highlighted in the context of the implementation of IM and with a focus on solving global issues towards a more peaceful and just global community (Tarc, 2009, 2018).

A study conducted by Ryan et al. (2018) in Chicago state/public schools showed that MYP (humanities) teachers were particularly acquainted with the IBLPAs and were comfortable with including these into their teaching and learning practices. Classroom observations revealed, however, that the approaches to integrating the LPAs into teaching and learning varied widely, which the researchers suggest might be due to the varied (conceptual) understanding of IM, divergent interpretation of the LPAs' purpose and definitions, and the difference in resourcing and training (Ryan et al., 2018; Tocci et al., 2021). This divergent understanding and its impact on implementation of the IBLP was also identified by Lai et al. (2014) who conducted interviews with nine experienced Chinese language teachers in six diverse IB schools in Hong Kong which offered the DP (Lai et al., 2014). This study found that the implementation of IM was impacted by four factors, namely:

- the background of the teachers, including their experience, educational convictions, understanding, interpretation or implementation of IM (also identified by Metli et al., 2019),
- the subject that was being taught by individual teachers (also found by Bruckner, 2016, and in Chatlos, 2015, as cited in Poole, 2017),
- the specific DP curriculum and its characteristics, e.g. assessment focus, ideology, approach to learning and knowledge constructions, etc., and
- the school ethos including the expectations and focus of the school and community (i.e. parents) (Lai et al., 2014: 92).

Other studies suggest, that where teachers have substantial experience living and working abroad these experiences impact their understanding and practice in relation to (developing) IM (Cushner, 2007; Hacking et al., 2018; Mahon & Cushner, 2014; Merryfield et al. 2012).

In summary, research findings suggest that there is some shared understanding of IM (Bruckner, 2016; Hacking et al., 2018; Lai et al., 2014; Merryfield, 2012; Ryan et al., 2018; Tocci et al., 2021), but context and resourcing of schools and background, training and experience of teachers influence the implementation and strategies for teaching and learning of IM (Bruckner, 2016; Hacking et al., 2016; Kidson, 2019, 2021; Lai et al., 2014; Mahon & Cushner, 2014; Merryfield, 2012; Ryan et al., 2018; Tocci et al., 2021). Furthermore, school leadership – although supportive of the ideology – is not always influential or proactive enough in promoting the development of IM within the school (Kidson, 2019, 2021). This is despite the fact, that leadership is fundamental

in ensuring effective practices towards an education for IM (Gardner-McTaggart, 2021a; Kidson, 2019, 2021; Lai et al., 2014; Tarc, 2018). The school ethos and expectations of the wider community play a role in the emphasis and choices within the frame of an IB education, for example a focus on ideology, a focus on academic and/or economic interests, or a mixture of various foci. Furthermore, there are mixed findings with regards to development of IM in students, ranging from no development (Metli, 2018, 2021), over the development of elements of IM (Baker & Kanan, 2005), to statistically significant differences in the development of IM in IB DP students in comparison to their non-IB peers (Demìrcìoğlu & Çakir, 2016; Gándara et al., 2021).

## Section 2: Conceptualisations of International Mindedness in Theory and Practice

This section introduces the ideology of IM as articulated through the IBLP and the three dimensions *intercultural understanding, multilingualism*, and *global engagement* (IB, 2019a). After an introduction of the IBLP, the dimensions of IM will be discussed. Each dimension will be connected to the IBLPAs it is most closely associated with.

### International Mindedness in the IB

#### *The IB Learner Profile*

The IBLP emerged and evolved from the PYP student profile (Lee, 2014) and was first published in 2006 (IB, 2017; IB, 2019b) and, throughout 2011-2012, thoughtfully scrutinised and collaboratively revised with the development of IM in mind (publication 2013) (IB, 2019d; Walker, 2014). According to IB documentation "*the learner profile is the mission statement in action*" (IB, 2014b: 2). In this sense, the IBLP is a collection of ten attributes or characteristics with their respective definitions which are foundational to IB's educational philosophy, and which represent the core ideals and values of the IB and its community (IB, 2019d; Lee, 2014). The ten IBLPAs embody what it means to be internationally minded (Castro et al., 2015; IB, 2019a; Singh & Qi, 2013; Walker et al., 2014) and through these attributes, the development of knowledge, skills and dispositions are fostered (IB, 2019a). In developing these attributes, students' attitudes are shaped and their (world)views are expanded from those of familiarity towards more global perspectives (Walker, 2014), but it is emphasised frequently that this ought to happen without compromising or surrendering students' national identities (Tarc, 2009; Hill, 2015; Panjwani, 2014; Lee, 2014; Walker, 2014).

It is not unusual, of course, for institutions, cultures, organisations, or any form of organised society, to articulate their core values (Lee, 2014). While societies, communities, organisations or even life as we know it may change, core values ought to offer a constant and somewhat unchangeable element (Walker, 2014). Nevertheless, while the IBLP must offer a solid foundation, inspiration and compass for a common understanding on how to live harmoniously together in this world, the attributes and definitions also offer provocation for discussion and experience adjustments, reinterpretations or new orientations given the diverse cultural contexts in which the IB operates (Walker, 2014). On a practical level this means that the IBLPAs are neither to be considered a definite or exclusive set of characteristics or as an end point. In this sense, it is encouraged to explore the IBLP within the cultural contexts in which IB schools operate (IB, 2019b). Furthermore, developing the IBLPAs is a process (IB, 2019a, 2019b).

The question then poses itself *how* exactly the IBLP fosters IM in students. According to Walker, the IBLP simply provides "*a description of the knowledge, skills and values that will underpin the concept of international mindedness*" (Walker, 2014: 5). Recent IB documentation connects the development of IBLPAs with the development of IM as follows: "*The development of these attributes is the foundation of developing internationally minded students who can help to build a better world*" (IB, 2019a: pg. 3). However, the IBLP does not specifically link IM with its attributes, and any links remain a philosophical hypothesis rather than fact (Lee, 2014; Walker, 2014). Lee (2014) suggests that connections between IM and the LPAs could be established by the analytical reader. However, some attributes are more obviously connected to IM (e.g. open-minded) (Merryfield et al., 2012; Walker, 2014), whilst others require greater conceptual insights in drawing a meaningful correlation (Walker, 2014). For example, a research study has shown that among educators and students, open-mindedness is considered to be an essential aspect of IM as it connects to learning about and appreciation of globally diverse cultures, traditions, experiences and ways of life (Merryfield et al., 2012). Empathy, on the other hand, is embodied in the LPA *caring*. Panjwani (2014) explains that empathy is essential to being able to consider different points of view and that IM is dependent on the ability to "*understand the complexities of the world from multiple perspectives*" (Panjwani, 2014: 10). Likewise, empathy is associated with an awareness of the complexity of intercultural and global issues and the interconnectedness with people and the

world (Merryfield et al., 2012). Problematic in this context is, however, that – while the IBLP has a strong impact on practitioners' understanding of IM and ultimately its implementation (Merryfield et al., 2012) – interpretations of the IBLPAs also vary depending on the diverse cultural contexts in which they are implemented (Cause, 2011; Hacking, 2018; Bruckner, 2016; Lai et al., 2014; Walker, 2010).

Furthermore, the IBLP is associated with the values of holistic education (Hare, 2010) as well as Western humanism and enlightenment ideology which have been debated in the context of cross-cultural relevance (see chapter two) (Bunnell, 2021; Hill, 2015; Lai et al., 2014; Lee, 2014; Poole, 2017; Tate, 2013; Walker, 2010, 2014). Despite the IBLP's stated aim for relevance across the entire IB community (e.g. learners, teachers, leadership, parents, alumni, etc.), which may also be considered a rather Western approach in itself with regards to the dissolving hierarchies associated with teaching and learning (Walker, 2010), not all values encapsulated in the IBLPAs are equally appreciated across cultural contexts. Those not universally shared include, for example, values relating to independence, confidence, curiosity and critical inquiry, or risk-taking to name but a few (Walker, 2010). In addition, the universal applicability may be hampered by the rigidity and inflexibility of the IBLP (Bittencourt, 2017; Poole, 2017). While schools may add one or more attributes, the content of the published IBLP may not be adjusted, for example to suit a cultural context, except for two permitted changes: the adjective *spiritual* may be added to the attribute *balanced*[25] and the attribute *risk-taker*[26] may be re-labelled to *courageous* (IB, 2019b), the latter possibly due to its negative connotations across diverse cultures[27] (Lai et al., 2014; Poole, 2017; Walker, 2010). However, Bunnell et al. (2022) stipulate that attributes such as *risk-taker* are extremely relevant and important in the modern global economy where the ability to take (calculated) risks is a prerequisite for success. Furthermore, Hill (2015) explains that although attributes may seem individualistic, the definitions include collaboration and interaction. Finally,

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[25] "We understand the importance of balancing different aspects of our lives – intellectual, physical, spiritual and emotional – to achieve well-being for ourselves and others" (IB, 2019a: 4).
[26] "We approach uncertainty with forethought and determination; we work independently and cooperatively to explore new ideas and innovative strategies. We are resourceful and resilient in the face of challenges and change" (IB, 2019a: 4).
[27] The attribute risk-taker has, for example, been associated with irresponsible or even reckless behaviour in Middle Eastern and Asian cultures (Lai et al., 2014; Poole, 2017), which is far from the intention that the IBLP associates with this attribute (Bunnell et al., 2022; Walker, 2010).

some of the characteristics associated with the IBLP are also observable in youngsters who do not follow the IB programmes, for example *third culture kids* or *adult third culture kids* (Pollock et al., 2017). In this context, the question arises whether any development of the IBLPAs (along with IM) in IB students is due to an IB education or is influenced by other factors.

*Dimensions of International Mindedness*

IM comprises an understanding of the world, for example, through "*sustained inquiry into a range of local and global issues*" (IB, 2019a: 8), a commitment or responsibility to society and an ability to navigate across cultures (IB, 2019b). An expressed focus is on leading IB learners to an awareness of their interconnection with others (IB, 2019a, 2019b). Another central aim in developing IM is the development of an openness and resilience towards the challenges that arise from rapid globalisation, especially in the light of technological advances and changing societies (IB, 2015). According to the IB, the construct IM is associated with three dimensions (Singh & Qi, 2013) and these three dimensions complement each other and mutually contribute to the development of IM (IB, 2019a[28]):

- intercultural understanding
    - Students engage and interact cross-culturally and learn to acknowledge different perspectives, "*beliefs, values, experiences and ways of knowing*" (IB, 2019b: 5).
- multilingualism
    - Students learn to communicate in different languages and across cultures through a variety of modes of expression (IB, 2019a).
- global engagement
    - Students develop the willingness and competences to act on local or global issues (global engagement) (IB, 2019a).

The upcoming passages will introduce each of these dimensions and connect them to the IBLPAs that are most relevant to the specific dimension. To achieve this, the IBLPA definitions are first quoted in a text box. These definitions are broken down into themes which are shown in a figure

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[28] Relevant to the timing of this study is that the document "*What is an IB education?*", which was originally published in 2013, has been updated in 2015 (IB, 2015) and republished in 2019 (IB, 2019a). In 2019, the document was supplemented with an additional support material document (IB, 2019b). The updates did not affect the IB's understanding or meaning of IM, meaning there has been no effect of the changes on the conceptualisation adopted for this study.

below the definition. After the figure, the themes are explained in relation to the dimension. It is also important to note, that most attributes do not fit into or support solely one single dimension. This is particularly apparent in one attribute, *balanced*, which may be associated with any and all dimensions of IM, and which also relates to other IBLPAs.

## Balanced

"*We understand the importance of balancing different aspects of our lives - intellectual, physical, and emotional - to achieve well-being for ourselves and others. We recognize our interdependence with other people and with the world in which we live*" (IB, 2019a: 4).

| Theme | • Evidence or demonstration of … |
|---|---|
| [B1] Life balance | • ability to balance the diverse demands along with recreational and health-related elements of life<br>• concern for well-being of self and others |
| [B2] Interdependence with people | • awareness, understanding and appreciation of interdependence with others |
| [B3] Interconnectedness with the world | • awareness, understanding and appreciation of interconnectedness with world events<br>• awareness, understanding and appreciation of interconnectedness with and responsibility for the environment and the planet |

*Figure 2: Overview of themes relating to the LPA 'balanced'*

The notion of being balanced is concerned with a type of stability and harmony in life, also associated with managing different requirements and necessities but also enjoyments and healthy habits as expressed in theme [B1] *'Life-balance'*. In this context the attribute is not only concerned with one's own balance, but also associated with a concern for the well-being of others. Theme [B2] *'Interdependence with people'* refers to students being aware that they do not exist in isolation, but that they see themselves as part of society and as interconnected and interdependent with other people communally, locally as well as globally. Theme [B3] *'Interconnectedness with the world'* refers to students demonstrating a concern and consideration for the planet and environment and

that they understand their interconnectedness with world or global events. It is also interesting to note that this attribute is representative of the motifs or ideas of the holistic learning theory (Johnson, 2019), namely intrapersonal [B1], interpersonal [B2], and global [B3] interconnectedness (for example with and to the world and the complexity of circumstances).

*Intercultural Understanding*

IB documentation, such as the mission statement, emphasises intercultural understanding by stating that an IB education aims to encourage and equip students to "*[…] help to create a better and more peaceful world through intercultural understanding and respect*" (IB, 2022a) and to "*[…] become active, compassionate and lifelong learners who understand that other people, with their differences, can also be right*" (IB, 2022a). Throughout IB documentation, intercultural understanding carries a pronounced cognitive emphasis, which has been criticised for its strong associations with Western philosophy and ideology (González Ben, 2021). In the wider literature, intercultural understanding is described as the ability to equally appreciate and respect one's own as well as others' perspectives, beliefs, expressions, and ways of acting or responding to situations. Intercultural understanding also pertains to an awareness of the fluidity and changeability of culture(s) along with an openness and adaptability towards other societies, cultures and languages (Williams-Gualandi, 2015). In this sense, intercultural understanding is strongly associated with LPAs such as *knowledgeable, inquirer,* and *thinker*. This is evident in IB documentation relating to intercultural understanding, for example:

- to *"gain the understanding necessary to make progress toward a more peaceful and sustainable world"* (IB, 2019a: 2) (LPA: *knowledgeable*),
- to investigate cultural diversity and interconnectedness (IB, 2019a) (LPA: *inquirer*), and
- to "*think and collaborate across cultures and disciplines*" (IB, 2019a: 2) (LPA: thinker).

## Knowledgeable

> "*We develop and use conceptual understanding, exploring knowledge across a range of disciplines. We engage with issues and ideas that have local and global significance*" (IB, 2019a: 3).

| Theme | • Evidence or demonstration of ... |
|---|---|
| [K1] Conceptual knowledge | • conceptual knowledge and understanding |
| [K2] Contextual knowledge | • knowledge and understanding across a range of disciplines and diverse languages and cultures |
| [K3] Local and/or global knowledge | • knowledge and understanding of and engagement with local and/or global issues |
| [K4] Understanding towards a peaceful and sustainable world | • knowledge and understanding of how to initiate change "*[...] towards a more peaceful and sustainable world*" (IB, 2019a: 2) |
| [K5] Understanding of global responsibility | • understanding of personal/human responsibility for the world and its resources |

*Figure 3: Overview of themes for LPA 'knowledgeable'*

The first three themes [K1-K3] are derived directly from the definition of the LPA *knowledgeable*. The first theme [K1] *'Conceptual knowledge'* is associated with the demonstration, development or use of conceptual understanding. The second theme [K2] *'Contextual knowledge'* refers to demonstrations of engagement with multiple knowledge areas or disciplines, but also with knowledge and understanding of diverse language(s) and culture(s) as stated in various IB documents (e.g. IB, 2008a, 2008b, 2014a, 2014d, 2019a, 2019b). The theme [K3] *'Local and/or global knowledge'* also connects to the statement "*to be open to the world, we need to understand it*" (IB, 2019a: 2) and encapsulates an understanding of local and global issues, but also experiences of diverse cultures and places. Themes [K4] *'Understanding towards a peaceful and sustainable world'* and [K5] *'Understanding of global responsibility'* focus on knowledge and understanding of the interconnectedness of human beings with each other and with the world. These sentiments are expressed within IB documentation, for example by indicating that through an IB education students will "*gain the **understanding** necessary to make progress towards a more peaceful and sustainable world*" (IB, 2019a: 2), and that students are guided "*to **recognize** that they hold this planet and its resources in trust for future generations*" (IB, 2019a: 2).

> "*We nurture our curiosity, developing skills for inquiry and research. We know how to learn independently and with others. We learn with enthusiasm and sustain our love of learning throughout life*" (IB, 2019a: 3).

| Theme | • **Evidence or demonstration of …** |
|---|---|
| [I1] Cultivate curiosity | • the desire or devotion to know and to find out (about things) |
| [I2] Research skills | • the development and use of inquiry and research skills |
| [I3] Learning skills | • independent and collaborative learning skills |
| [I4] Sustained and life-long learning | • enthusiastic, sustained and life-long learning |

*Figure 4: Overview of themes relating to the LPA 'inquirers'*

IM is described as a "*multifaceted and complex concept that captures a way of thinking*" (IB, 2019a: 2). This way of thinking is captured through the LPAs *inquirer, thinker* and *reflective*, which are also associated with critical thinking skills that are necessary to develop international mindedness (Singh & Qi, 2013)*.* The themes for *inquirer* encapsulate some of the ideals of holistic learning. Theme [I1] *'Cultivate curiosity'* is the foundation of learning and relates to a desire or devotion to know and to find out about things. The other themes focus on students developing effective inquiry and research skills: [I2] *'Research skills'*, competencies to learn independently and in collaboration with others: [I3] *'Learning skills'*, and effective and healthy practices towards sustained and life-long learning: [I4] *'Sustained and life-long learning'*, all with a specific focus on local and global issues (IB, 2019a). These specific inquiry skills are necessary to develop and enhance intercultural knowledge and understanding.

Thinker

"*We use critical and creative thinking skills to analyse and take responsible action on complex problems. We exercise initiative in making reasoned, ethical decisions*" (IB, 2019a: 3).

| Theme | • Evidence or demonstration of ... |
|---|---|
| [T1] Critical and creative thinking and problem-solving | • the use of "*critical and creative thinking skills*" (IB, 2019a: 3)<br>• the analysis and examination of intricate problems<br>• effective responses and responsible actions to problems or issues |
| [T2] Informed and ethical decision-making | • (taking) the "*initiative in making reasoned, ethical decisions*" (IB, 2019a: 3) |

*Figure 5: Overview of themes relating to the LPA 'thinker'*

Thinkers become increasingly able to think critically, creatively and analytically, for example about real-world issues. However, they are also accountable for their behaviour, conduct and decision making. In this sense, theme [T1] *'Critical and creative thinking and problem solving'* describes the use of specific thinking strategies in order to examine, ideate and solve (sometimes) intricate problems and to generate effective and creative responses to these. Theme [T2] *'Informed and ethical decision-making'* focusses on reasoned ethical responses, for example those exemplified by fairness, justice, respect for the dignity and rights of people, connecting this theme closely with the attribute *principled* (IB, 2019a).

However, intercultural understanding is also connected to being *open-minded* and *reflective*, as is evident in notions such as:

- appreciating and being open to diverse views and perspectives, similarities and differences "*between communities, peoples and nations*" (IB, 2019b: 2), ways of knowing, and humanity's complex connections, interactions and motivations (IB, 2019b) (LPA: *open-minded*]

- appreciating and reflecting on diverse experiences (IB, 2019a; Boix Mansilla, 2019), beliefs and values or value systems (IB, 2019b) (LPA: *reflective* and *open-minded*].

## Reflective

> "*We thoughtfully consider the world and our own ideas and experiences. We work to understand our strengths and weaknesses in order to support our learning and personal development*" (IB, 2019a: 4).

| Theme | • **Evidence or demonstration of …** |
|---|---|
| [R1] Consideration of interconnectedness | • being able to situate oneself and one's thinking into context and as connected to the wider world |
| [R2] Personal development | • identify areas for development and areas of strength in order to develop and refine one's personality |

*Figure 6: Overview of themes relating to the LPA 'reflective'*

This attribute focusses on the reflection on one's own knowledge, ideas and experiences in connection with the wider world, real-life contexts or complex systems or relationships, for example in theme [R1] *'Consideration of interconnectedness'*. The theme relates to notions of interconnectedness (Johnson, 2019) and to the LPA *balanced* (e.g. themes [B2] *'Interdependence with people'* and [B3] *'Interconnectedness with the world'*). The attribute also leads students to nurture themselves by considering and understanding personal areas for development and areas of strength, for example in theme [R2] *'Personal development'*, which relates to notions of intra-personal awareness (Johnson, 2019).

## Open-minded

> "*We critically appreciate our own cultures and personal histories, as well as the values and traditions of others. We seek and evaluate a range of points of view, and we are willing to grow from the experience*" (IB, 2019a: 3).

| Theme | • **Evidence or demonstration of …** |
|---|---|
| [O1] Appreciation of heritage and traditions | • critical appreciation of, reflection on, and respect for diverse cultures, histories, traditions, and identitites |
| [O2] Curiosity for different perspectives and beliefs | • curiosity for and appreciation of different perspectives, beliefs, values, and experiences |
| [O3] Grow from experience | • willingness to learn and grow from the experience |

*Figure 7: Overview of themes relating to the LPA 'open-mindedness'*

For this attribute, the first theme [O1] *'Appreciation of heritage and traditions'* focusses on the critical appreciation of, reflection on and respect for one's own and other cultures, histories, and traditions as well as diverse identities (IB, 2019b). The second theme [O2] *'Curiosity for diverse perspectives and beliefs'* entails a curiosity for (i.e. to seek) and appreciation of (i.e. to evaluate and respect) different perspectives, beliefs, values and experiences (IB, 2019a). Participants in a study conducted by Merryfield et al. (2012) associated *open-mindedness* with proactive listening and, in this context, the appreciation of diverse points of view (i.e. perspective-taking) (Merryfield et al., 2012) connecting the IBLPA *open-mindedness* with characteristics of constructs such as *intercultural* or *global competences* which include proactive listening and perspective-taking (Byram, 1997; Byram & Golubeva, 2020; Deardorff, 2011; Hammer, 2011; Hammer et al., 2003; Leeds-Hurwitz, [29] 2013; OECD, 2018) and *intercultural understanding* (Williams-Gualandi, 2015[30]). Perspective-taking further involves the negotiation of viewpoints as well as the adoption of different cultural lenses in the process (Byram, 1997, 2009; Byram & Golubeva, 2020; Hanvey,

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[29] According to Leeds-Hurwitz (2013) *intercultural competences* encompass skills for successful interaction, the ability to successfully utilise intercultural knowledge, and capacities for proactive listening and perspective taking.

[30] According to Williams-Gualandi (2015) *intercultural understanding* is the ability to appreciate and respect one's own as well as other's perspectives, beliefs, expressions, and ways of acting or responding to situations. *Intercultural understanding* also pertains to an awareness of the fluidity and changeability of culture(s) along with an openness and adaptability towards other societies, cultures and languages (Williams-Gualandi, 2015).

1982, as cited in Cushner, 2007). However, while the IB (cognitively) encourages perspective-taking, this is not placed effectively into a context of interpersonal interaction and negotiations, leaving a practical and application-based gap in the theoretical IB literature (Castro et al., 2015), although an attempt is made to encourage practical pathways to perspective-taking in a more recent document in which "*A portraiture approach to IM*" is introduced (IB, 2019b). Theme [O3] *'Grow from experience'* includes active engagement and interaction with situations that allow for learning and development. Here, a gap between the notion of growing from experience (IB, 2019a) and the importance for an ability to adapt effectively to diverse contexts as associated with *holistic learning* (Johnson, 2019), *intercultural competences* (Alred & Byram, 2002; Byram & Golubeva, 2020; Hammer, 2011; Hammer et al., 2003; Leeds-Hurwitz, 2013; Merryfield, 2012; OECD, 2018), *cultural intelligence* (Ang et al., 2015; Ang & Van Dyne, 2003; Van Dyne et al., 2015) and *intercultural understanding* (Williams-Gualandi, 2015) is noticeable.

*Multilingualism*

Multilingualism is considered to be an active and fundamental component in developing IM (Allan, 2003, 2011; Hawley, 2017; Haywood, 2007; IB, 2008b, 2019a) and an important catalyst for intercultural understanding and diverse perspective-taking (Allan, 2011; Garrett-Rucks & Jansa, 2020; IB, 2008b, 2014a, 2019a), while ineffective language learning strategies can have counter-effects, including the rejection of other cultures and their languages (Allan, 2003, 2011). Language learning is further associated with multifaceted cultural, social and linguistic experiences through which global citizenship, openness, tolerance, and respect towards diverse others emerge and evolve (Castro et al., 2015). Language acquisition is also associated with developing identity, namely one's own identity and understanding the identities of diverse others (Allan, 2011; Byram & Golubeva, 2020; Castro et al., 2015) which supports intercultural understanding. Effective language learning is a key driver in how we understand our environment, perceive social structures, process feelings, build relationships and ultimately how we behave and interact (Allan, 2011; IB, 2008b, 2014d). While there is acknowledgement that monolingual people may be internationally minded, the extent of it is thought to be fairly limited (Singh & Qi, 2013). However, conceptually the elevated role of multilingualism in the IB has been questioned by Metli & Lane (2020) who suggest that, rather than a dimension of IM, multilingualism should be considered as part of the skills that are fundamental in developing intercultural competences.

In a practical context, multilingualism is considered an asset and a right as part of an IB education. Multilingualism and language learning are a practical reality in many international, but also state schools. Increasingly, schools have a diverse student body and community which generally brings diverse linguistic backgrounds to the classroom. Students in the same class may have different mother tongues and some students may even have more than one mother tongue or multiple languages in which they are more or less secure depending on the context or subject that is being studied (IB, 2008b). This means, effective international language education must support and cater for (increasing numbers of) non-native language speakers so that they can access language, culture and subject content effectively (Hayden & Thompson, 2016; Murphy, 2003). Consequently, multilingualism must be approached from a practical perspective in diverse contexts in consideration of mother tongue education, multilingualism and foreign language acquisition to effectively develop various linguistic and critical literacy skills which are considered fundamental in the development of sociocultural competencies (IB, 2014a). Therefore, in line with the IB's "*Programme standards and practices*" (IB, 2022g), all IB programmes challenge students to engage with (i.e. study or study in) at least one other language (IB, 2019a). Each school needs a language policy which aligns with IB guidelines and acknowledges the social and cultural contexts of the school and its wider community. In addition, IB schools must offer at least one additional language aside from the working language or the mother tongue of the school (IB, 2008a).

Pedagogically, language learning ought to be contextual, experiential, and relational in order for students to effectively access and engage with diverse cultures, foster interpersonal interactions and develop necessary social communication skills (Allan, 2011; IB, 2014a; Merryfield et al., 2012). In this way, understanding is transformed into new meanings, which is an important feature of holistic learning (Johnson, 2019). A connection may be drawn to Arts education where contextual, experiential and relational engagements are a strength in "*understanding the world that is inhabited by others*" (Mishra, 2018: 112). This means, the Arts allow students to step into different contexts and to experience the world and diverse societies from different perspectives (Mishra, 2018). However, accessing diverse cultural Art forms in view of their inherent practices and traditions (Green, n.d.) needs to be approached with sensitive consideration of how our own reference and value frameworks skew the view and understanding of such Art forms and cultures (Blair & Kondo, 2008; Fock, 1997). Engagement with others (and their cultures, languages and/or

arts) through *our* preconceived and culturally shaped frameworks does little to enhance (intercultural) understanding, but on the contrary may reinforce stereotypes and overgeneralisations (Fock, 1997; Garfias, 2004; Levitin, 2008). In this context, research has shown that experiential, contextual and relational connections made when studying music from different cultures were found to foster intercultural understanding, appreciation and IM, while a lack of these connections lead to apprehension and rejection of the cultures studied (Abril, 2006, 2009; Holmes & VanAlstine, 2014; VanAlstine & Holmes, 2016).

### Communicator

The LPA which most explicitly connects to multilingualism is *communicator*:

> "*We express ourselves confidently and creatively in more than one language and in many ways. We collaborate effectively, listening carefully to the perspectives of other individuals and groups*" (IB, 2019a: 3).

| Theme | • Evidence or demonstration of … |
|---|---|
| [C1] Multilingual communication | • confident and/or creative use of multiple languages |
| [C2] Multimodal communication | • confident and/or creative use of multiple forms or modes of communication |
| [C3] Listening and appreciation | • listen to or recognize and appreciate diverse perspectives, beliefs, values, cultures, or experiences |
| [C4] Collaboration | • effective collaboration including "*across cultures and disciplines*" (IB, 2019a: 2) |

*Figure 8: Overview of themes relating to the LPA 'communicator'*

The first theme [C1] *'Multilingual communication'* refers to communicating or expressing oneself "*confidently and creatively in more than one language*" (IB, 2019a) as discussed above. Furthermore, according to IB documentation being a communicator includes not only the use of multiple languages, but also multimodal communication and effective collaboration (Singh & Qi, 2013; IB, 2019a, 2019b). It is important to notice that in connection with communication in multiple languages, as well as "*wide-ranging forms of expression*" (IB, 2015), different ways (IB,

2019b), or modes (IB, 2008b) are mentioned. In this context, multilingualism is described as a complex concept:

> *"[...] a person may be multilingual, inclined to communicating in a variety of ways in more than one language and form of expression; understanding language in its social context (such as register, localisms); or appreciating cultural productions in more than one language (such as literature, journalistic accounts, film)"* (IB, 2019b: 5).

Consequently, the second theme [C2] *'Multimodal communication'* includes communicating or expressing oneself "*confidently and creatively in many ways*" (IB, 2019a: 3). These statements suggest that multilingualism extends from language learning to understanding contextual messages and meaning as well as artefacts, but also to communicate in different ways, using diverse forms of expression which may include artistic and other cultural forms of expression. The question then arises, if it is only in connection with linguistic expression that other (non-lingual) modes, forms or ways of communicating and understanding other people and cultures are considered or if such (non-lingual) forms of communication may be considered a part of "multilingualism" at all. IB documentation goes through great length to explain the meaning and expectations around multilingualism and language learning, but modes, forms and ways of expression are not further unpacked. Theme [C3] *'Listening and appreciation'* includes proactive listening, observation and perspective-taking with regards to, for example, diverse views and opinions, beliefs, values, cultures, identities or experiences. The importance of proactive listening and observation is also discussed in relation to constructs such as *intercultural* or *global competence* (Byram, 1997, 2009; Deardorff, 2011; Leeds-Hurwitz, 2013; OECD, 2018) and provides a meaningful connection of this LPA to the wider literature. A fourth theme [C4] *'Collaboration'* centres around collaborating and working with others as students "*think and collaborate across cultures and disciplines*" (IB, 2019a). Similarly, collaboration is considered as an important element in constructs such as *intercultural competences* and *global citizenship* (Fantini et al., 2001; Räsänen, 2007) as well as in holistic education (Johnson, 2019a, 2019b). Collaboration will be addressed further in the next passage on *Global Engagement.*

### *Global Engagement*

According to the IB, *global engagement* is a willingness to consider perspectives and matters concerning the world, to take action, to get involved in resolving challenges and issues of wider reach, and to serve in the community and beyond (IB, 2019a). Through global engagement,

students better *understand* the complexities surrounding local and global issues, evolve "*personally and socially*" (IB, 2014b: 2), and develop *skills and dispositions* needed for future proactive engagement (IB, 2019a: 1), which include "*cooperation, problem-solving, conflict resolution, and creative and critical thinking*" (IB, 2014b: 2). Furthermore, global engagement challenges students to

- "*explore global/local issues and engage with the world*" (IB, 2019b: 5),
- "*critically consider power and privilege*" (2019a: 2),
- acknowledge their stewardship of sources and resources of the world (IB, 2019a),
- take responsibility for "*others and future generations*" (Boix Mansilla, 2019b: 5),
- take action in the light of global challenges (Boix Mansilla, 2019b: 5), and
- get involved in "*bringing about meaningful change*" (IB, 2019a: 2).

Global engagement is connected to the constructs global or world citizenship (Castro et al., 2015; Merryfield et al., 2012). For example, a *global citizen, world citizen,* or *earth citizen* is considered as one who is proactively engaged at a local, national, international and global level (Merryfield, 2008, 2012; Tarrant, 2010; Tarrant et al., 2011; Wynveen et al., 2012). *Global, world* or *earth citizens* are aware and informed about global problems, demonstrate accountability towards the environment[31], an obligation towards social issues and justice, and a commitment to those in need (Dobson 2003, as cited in Wynveen at al., 2012; Hanson, 2010; Merryfield et al., 2008; Tarrant et al., 2011). Important in this context (as discussed earlier) is a sense of interconnectedness[32] which leads to respect and the motivation to take effective and responsible actions appropriate to the context of the issue (Dobson 2003, as cited in Wynveen at al., 2012; Merryfield, 2008). In an IB

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[31] Environmental responsibility is an important aspect of and demonstration of the nature of *global citizenship* as environmental issues along with unfair distribution of resources have a large-scale global effect, although their causes are often localised with direct benefits to only a limited number of people. This means that environmental action or engagement can be considered as one of the most distinct and impactful outcomes of the mindset of a truly *global citizen* (Wynveen et al., 2012).

[32] Important in relation to this concept is an awareness of interconnectedness including
- personal connectedness: consideration of/respect for oneself as well as an awareness of the limitations of one's own perceptions, views and understanding,
- interpersonal connectedness: consideration of others, and
- global connectedness: consideration of the world, people, and the environment, events and their impact, complexity of the world and knowledge, different times (past, present, future) (Godwin, 1993, as cited in Räsänen, 2007; Johnson, 2019).

context, considerations of intrapersonal, interpersonal and global connectedness are generally captured in the IBLPA *balanced.* However, this LPA assumes a more implicit and sub-ordinate position (i.e. "*we understand"* and "*we recognize*"), rather than playing a proactive or motivational role towards global action. However, the concept is embedded implicitly in IB documentation. For example, *global consciousness* expresses a form of awareness of connectedness through intercultural experiences in today's world (e.g. through products, people, media, etc.), the ability to contextualize such experiences, and the capacity to see oneself as a proactive part in an increasingly intercultural world (IB, 2018a). According to Hill (2015), *global consciousness* goes beyond the regular interest in global problems and interaction with other cultures but includes further proactive engagement and involvement with intercultural and cross-governmental services, which connects to one's willingness to take action or to be proactively engaged.

With regards to global engagement, the IBLPAs *caring* (along with empathy) and *principled* (along with respect) are associated with being a proactive global citizen. These characteristics are associated with greater intercultural understanding, respect and appreciation towards diverse others, but also with taking positive action (IB, 2019a). Respect was an important theme in two studies, where participants emphasised this characteristic with regards to personal, local and global connections (associated with intrapersonal, interpersonal and intercultural respect including respect towards one's own culture) (Hacking et al., 2018; Merryfield et al., 2012). This has been echoed in the wider literature where definitions of *intercultural* and *global competence* emphasised the importance of respect along with a sense of identity and self-awareness (Deardorff, 2011; OECD, 2018). Furthermore, the attribute *risk-taker* has been associated with global engagement (Bunnell et al., 2022; Lee, 2014; Panjwani, 2014).

## Caring

> "*We show empathy, compassion and respect. We have a commitment to service, and we act to make a positive difference in the lives of others and in the world around us*" (IB, 2019a: 3).

| Theme | • Evidence or demonstration of ... |
|---|---|
| [E1] Compassion | • "*empathy, compassion and respect*" towards others (IB, 2019a: 3) |
| [E2] Service | • a desire or motivation to serve or volunteer |
| [E3] Impact | • actions to "*make a positive difference*" (IB, 2019a: 3) |

*Figure 9: Overview of themes relating to the LPA 'caring'*

The attribute *caring* focusses on affective attitudes which lead to a motivation to serve and support others. Theme [E1] *'Compassion'* focusses on the demonstration of empathy and compassion along with respect, for example towards fellow human beings, but also by being emotionally affected by political or social situations, events or experiences. A similar sensitivity towards diverse others is described by constructs such as *intercultural empathy* which entails gaining increasing insight into a diverse other's thinking, feeling and behaviour in order to move towards appreciation and acceptance of cultural differences (Zhu, 2011). Closely related to this concept is *ethnocultural empathy*, which is described as "*empathy directed toward people from racial and ethnic cultural groups who are different from one's own ethnocultural group*" (Wang et al., 2003: 221). This type of compassion then leads to theme [E2] *'Service'* which demonstrates a desire and drive to volunteer or to serve and support others. Theme [E3] *'Impact'* relates to a desire to bring change and improvement for others or the world.

"*We act with integrity and honesty, with a strong sense of fairness and justice, and with respect for the dignity and rights of people everywhere. We take responsibility for our actions and their consequences*"

(IB, 2019a: 3).

| Theme | • **Evidence or demonstration of ...** |
|---|---|
| [P1] Integrity and honesty | • acts and behaviours of integrity and honesty |
| [P2] Fairness and justice | • acts and behaviours of fairness and justice |
| [P3] Respect for dignity and rights | • acts and behaviours of respect for others' dignity and rights |
| [P4] Responsibility | • ownership of actions and consequences |

*Figure 10: Overview of themes relating to the LPA 'principled'*

Theme [P1] is focussed on the demonstration of actions or behaviours of *'integrity and honesty'* (connecting it to the theme *'Impact'* [E3]), while theme [P2] is focussed on actions or behaviours associated with "*a strong sense of fairness and justice*" (IB, 2019a: 3) in relation to others (connecting it to the theme *'Compassion'* [E1]). Theme [P3] focussed on acts or behaviours of "*respect for the dignity and rights of people everywhere*" (IB, 2019a: 3). This ethical form of respect also connects to theme [E1] *'Compassion'*, which focussed on respect from the angle of compassion and empathy for people. Theme [P4] *'Responsibility'* encapsulates the notion that students are willing to take ownership and responsibility for their (thoughts, convictions and) actions and their respective outcomes or effects.

Risk-taker

| Theme | • Evidence or demonstration of … |
|---|---|
| [A1] Courage and determination | • a courageous and determined approach to a challenge or situation where the outcomes may be uncertain |
| [A2] Innovation | • taking new and innovative approaches in response to challenging situations |
| [A3] Resourcefulness and resilience | • effective independent work and collaboration<br>• imaginative use of resources |
| [A4] Problem-solving | • resolving issues and problems by looking at these from different perspectives and employing alternative solutions |

*Figure 11: Overview of themes relating to the LPA 'risk-taker'*

The disposition *risk-taker* addresses characteristics associated with a willingness and motivation to act (i.e. global engagement), such as *'Courage and determination'* [A1] relating to a courageous and determined approach to challenges or situations where the outcomes are unsure and possibly intimidating. Theme [A2] *'Innovation'* focusses on demonstrations of new and innovative approaches, for example in the form of environmental action, the organisation of events, or proactively promoting new directions in volunteer activities. Theme [A3] *'Resourcefulness and resilience'* is manifested in the ability to work independently and collaboratively and the effective and imaginative use of (sometimes limited) resources. This theme is connected to the wider literature which emphasises effective intercultural interaction, collaboration and dialogue as important dimensions of *global citizenship* (Räsänen, 2005, as cited in Räsänen, 2007) and *global or intercultural competences* (Byram and Golubeva, 2020; Fantini et al., 2001; OECD, 2018). However, in contrast to the definition of the LPA *risk-taking*, Räsänen (2007) stresses that in intercultural collaboration and dialogue, people must be considered as the focus of the interactions (i.e. the aim in themselves) rather than as means towards a goal. Theme [A4] *'Problem-solving'*

entails resolving issues by looking "*beyond immediate situations and boundaries*" (IB, 2019a: 2.) and considering diverse approaches and alternative solutions.

However, regardless of the positive intentions, a criticism of global engagement in the IB refers to service being seemingly 'outsourced' to the community through service-learning activities (Belal, 2017; Castro et al., 2015; Metli et al., 2019). Furthermore, on a values basis, global engagement in the IB is more associated with learning about and discussing social, ethical and human rights issues, rather than generating opinions about political situations or positions about social justice and taking action in response to global injustices (Castro et al., 2015). Others have criticised the lack of engagement with matters and topics relating to power and privilege (Bruckner, 2016; Merryfield et al., 2012). The IB's political neutrality may play a part in this outlook (Castro et al., 2015) along with potential sensitivities in cross-cultural perspectives and engagements. This, however, presents missed opportunities for educational engagement with and development of a greater understanding and awareness of pressing issues relating to equality, racism, gender, faith, power and privilege and other issues (Castro et al., 2015) towards the professed ideological aim of the IB to create a better and more peaceful world.

## Conceptual Understandings of International Mindedness in Practice

Despite the different perspectives, diverse practical approaches and manifold manifestations, research suggests that some shared theoretical understanding and vision for the construct of IM nevertheless exists within the IB community (Hacking et al., 2018; Bruckner, 2016; Castro et al., 2015). Apart from the 'loftier' ideological descriptions and definitions which can be hardly argued, and which teachers, students and school leadership tend to normally subscribe to (Metli et al., 2019; Tarc, 2019; Kidson, 2019, 2021) or in the case of parents at least accept as an 'unexpected bonus' (Lai et al., 2014: 88), a somewhat similar conceptual understandings of the construct also exists (Hacking et al., 2018; Tocci et al., 2021; Merryfield et al., 2012). The increasing body of research is certainly helpful in mapping the understanding and refining the frame of IM (Gunesch, 2007; Tarc, 2018). The ideological understanding of IM along with the conceptual understandings of the complex construct may be compared to the ripple effect generated by a rock falling into water. At the center is a deep moment of impact that is experienced and accepted by all, the ideology. Central circles contain central understandings relating to the conceptualisation. Then, the circles get

progressively weaker meaning there is less unity relating to the implementation of IM in practice. The following section will look at the conceptualisations that researchers and practitioners have formed (i.e. the middle circle) on the basis of IB's ideology in the context of practical and cultural considerations.

Ideology
of IM

Conceptualisation
of IM

Implementation
of IM
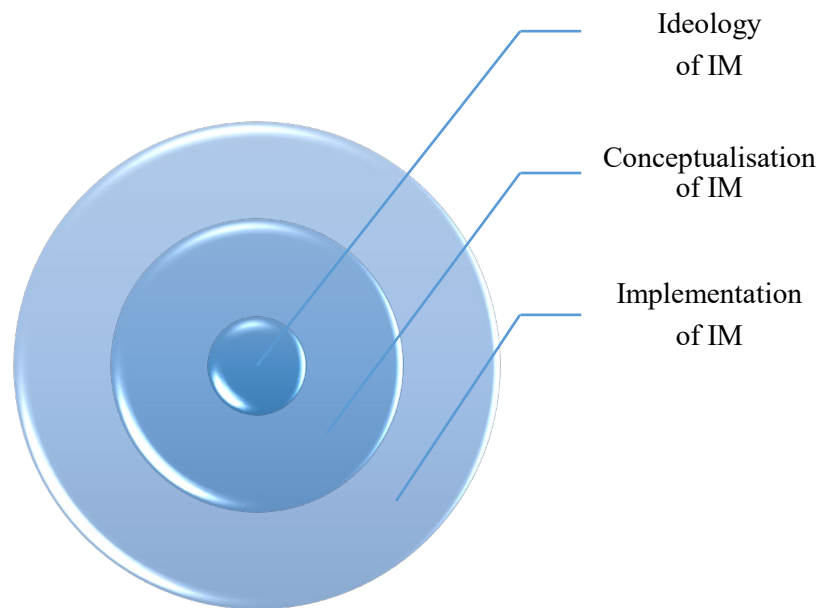
*Figure 12: Circles of impact in understanding IM*

*Sub-dimensions of International Mindedness*

In theory, Hill (2007) identified two sub-dimensions or domains when he suggested that IM develops on a spectrum from pragmatism, which includes cognitive aspects (knowledge and skills), to idealism, which entail affective aspects (attitudes and values that support human rights or humanitarian issues and sustainability) and which resemble the true manifestations of IM. Similarly, Lai et al. (2014) associated IM with two domains, namely a cognitive domain and an affective domain which entail competences and skills, knowledge and understanding, awareness and sensitivity, as well as behaviours and actions. These two domains lead to appropriate global actions (i.e. global engagement or willingness to act) (Lai et al., 2014). The cognitive domain is associated with global knowledge and intercultural understanding as well as skills and competencies such as metacognition, (inter)cultural literacy, and the ability to collaborate and to

engage with wide-ranging experiences (Lai et al., 2014; Savage, 2017). The affective domains consist of philanthropic inclinations along with attitudes of empathy, respect, a passion for peace, social justice and human rights, as well as a concern for the environment (Duckworth et al., 2005, as cited in Hill, 2015; Lai et al., 2014).

In practice, Merryfield et al. (2012) found that educators associated IM with global knowledge and being knowledgeable, but not with content. Content was considered a tool for critical thinking, such as drawing connections and asking critical questions. However, skills, attitudes and values and particularly *open-mindedness* were emphasised as key contributors in IM (Merryfield et al., 2012) connecting their practical understanding with Hill's (2007) theoretic explorations. Based on quantitative and qualitative data from two schools in Turkey, Metli & Lane (2020) proposed a revised framework for IM, in which they reduced the IB model to two dimensions (*intercultural competences* and *global engagement*) along with four sub-dimensions, namely knowledge, skills, agency and dispositions as they interpreted *multilingualism* as a skill in support of *intercultural competence*. Through this conceptualisation, the role of language learning and multilingualism in the development of intercultural competences (Byram, 1997, 2009; Alred and Byram, 2002; Byram & Golubeva, 2020) has been acknowledged and the construct of IM has been connected more clearly to the wider literature and IE discourse.

*Conceptualisations that Feature the Learner Profile Attributes*

In categorising the LPAs, Bullock (2011) suggested four domains, namely a cognitive, a conative, an affective, and a social or cultural domain. The cognitive domain is related to learning processes as well as knowledge acquisition and is associated with the LPAs knowledgeable, thinker, reflective. The conative domain refers to the motivation and drive but also the confidence in learning and action (e.g. being proactive) and is associated with the LPAs *inquirer* and *principled*. The affective domain reflects on attitudes and dispositions as manifested in one's belief system and habits and is associated with the LPAs *caring*, *risk-taker*, and *balanced*. The social or cultural domain is associated with the LPAs *open-minded* and *communicator* and comprises the cultural and social contexts and engagement in which students learn and which shape their learning (Bullock, 2011).

Similarly, and closely in keeping with the IBLP, Lee (2014) categorised an internationally minded learner into five different personality types, including the

- **learning being** who demonstrates a drive to learn and acquire knowledge (*inquirer, open-minded, knowledgeable*),

- **wisdom seeker** who transcends knowledge acquisition towards deep and differentiated appreciation and conceptualisation (*thinker, reflective*),

- **social being** who understands, cares about and communicates effectively with others (*caring, communicator*),

- **principled being** who translates knowledge and understanding into principles and upholds these in diverse contexts (*principled*), and the

- **action being** who uses and applies knowledge and puts this into practice even in the light of uncertainties (*risk-taker*).

Walker (2010), on the other hand, associated IM and the LPAs with three manifestations in students, namely

- **active participation** (associated with independence, confidence, and initiative in students' learning, expressions and behaviours) (*inquirer, communicator, risk-taker*),

- **personal responsibility** (associated with curiosity and balance across a wide range of disciplines, self-awareness of limitations and strengths, and confidence of one's own beliefs) (*thinker, knowledgeable, balanced, reflective*), and

- **moral development** (associated with integrity, honesty, openness, respect, and empathy towards diverse others) (*principled, caring, open-minded*).

Both of these conceptualisations capture students' attitudes, dispositions and values as part of a social and principled being (Lee, 2014) and moral development (Walker, 2014). Furthermore, unlike others, Walker (2010) included a notion of identity in the domain of personal responsibility.

A merge between approaches was found by Singh & Qi (2013) who, based on their literature review, connected the three dimensions of IM (*intercultural understanding, multilingualism* and *global engagement*) to six sub-dimensions which are associated with (groups of) LPAs and which include a separate category for dispositions (including attitudes and values) that is not apparent in IB documentation:

- **global knowledge** (*knowledgeable*),
- **metacognition** (*inquirer, thinker, reflective*),
- **open-mindedness** (attitudes of *open-mindedness*),
- **communication** (*communicator*, including multimodal communication and effective collaboration),
- **dispositions** (including a sense of responsibility and affect as associated with being *principled* and *balanced*, attitudes of affect and empathy associated with being *caring*, and a willingness to act associated with being a *risk-taker*) (Singh & Qi, 2013).

In contrast to his initial conceptualisation from 2007, Hill later (2015) described the construct in relation to the IBLP, namely as *knowledge* about, *openness* towards and *engagement* with

- a diversity of people, societies, cultures, and languages,
- current and future global functions, processes, and interactions, and
- matters of justice, rights, respect and equality (Hill, 2015).

In this way, multiple LPAs are addressed (e.g. *knowledgeable, communicator, open-mindedness,* etc.) and the three dimensions, for example *multilingualism* (e.g. openness towards people and languages)*, intercultural understanding* (e.g. knowledge about cultures) and *global engagement* (e.g. engagement with matters of justice) are implicitly connected. Interesting in this conceptualisation is an acknowledgement of a non-specific content that would lead to developing IM which is not normally addressed. However, in this conceptualisation, notions of an affective domain or attitudes, dispositions and values are not included.

*Categories of International Mindedness*

In contrast to the more standard conceptualisations within the field, Haywood (2007) aligned his thinking about IM with Gardner's thinking about multiple intelligences and in this way associated IM with various and in some instances arguably contradictory components (Savva & Stanfield, 2018). Haywood proposes ten different types of IM, which include diplomatic, political, economic and commercial, spiritual, multicultural, humanitarian and human rights, pacifist, environmentalist, and globalisation emphases (Haywood, 2007). The framework, although novel and certainly bearing food for thought, has not gained ground in further development and definitions of IM. The divergent nature of the categories themselves (Savva & Stanfield, 2018) may perhaps be better

understood as areas within which an internationally minded ethos or ideology may be demonstrated or applied. In this sense, Haywood (2007) proposes bi- or multilingualism as a fundamental element of IM along with key drivers including curiosity, openness, tolerance, knowledge and understanding, and interconnectedness of the world and diverse people and perspectives which ought to be delivered regardless of context. Contextual elements are then supporting the development of these key aspects, and these include the school context, the employed pedagogy, teachers, curriculum and course design, local surroundings, etc. (Haywood, 2007). In this sense, Haywood's outwardly different interpretation of IM aligns with the fundamental ideology at the center and with a conceptualisation that aims to make sense of the underlying components and elements, while the outer circles relating to implementation are associated with schools' and local contexts and educational practicalities in the field.

### Identity, Interdependence and Interconnectedness

With regards to IB documentation, identity has been mainly addressed in connection with multilingualism, although it may be implied in the LPAs *reflective* (in relation to personal development [R2]) and *open-minded* (in relation to personal histories and traditions [O1]). In the wider field of interculturality, identity is considered as an important aspect. Emerging themes associated an education for IM with the formation of identity and self-awareness, as well as an increasing understanding of the interdependence and interconnectedness of people (Duckworth et al., 2005, as cited in Hill, 2015; Merryfield et al., 2012). In this context, respondents to a research study by Bruckner (2016) emphasised the key elements of IM as "*understanding, awareness, and acceptance*" (Bruckner, 2016: 72). According to participants, understanding and awareness related to gaining a greater insight into

- the world along with current global events or situations
- oneself and one's own identity as part of a greater whole, and
- an increasing consciousness of cultural diversity and difference (Bruckner, 2016).

Acceptance, on the other hand, was associated by participants with tolerant attitudes and behaviours towards diverse others. The study further identified themes relating to LPAs, for example openness and perspective-taking (i.e. *open-mindedness*), empathy (i.e. *caring*), communication, debate and discussion (i.e. *communicator*). Other themes related to 'compatibility', 'adaptation', 'participation', 'global issues', etc. (Bruckner, 2016). Similarly, in

another study teachers associated being internationally minded with ways to interact with others, to understand the world, and oneself as part of it ('*reaching out*'), as well as to understand oneself in relation to others and to become aware and attuned to one's own identity in the larger context of life ('*reaching in*') (Hacking et al., 2018).

Savage (2017) associated seven manifestations of being internationally minded (which are below combined into five domains) that also connect to the three domains of IM and the IBLPAs. Identity is one of these domains which include:

- **Knowledge and understanding**
  - increasing knowledge, understanding and awareness of diverse cultures along with global matters and problems (connects to *intercultural understanding* [dimension] and *knowledgeable* [LPA]),
- **Identity**
  - a growing awareness and understanding of one's own identity and one's responsibilities as a global citizen (connects to *identity*, *self-awareness* and *global engagement* [dimensions]),
- **Empathy**
  - increasing levels of empathy (connects to *caring* [LPA]),
- **Collaboration**
  - a greater capacity to collaborate with diverse others (connects to *global engagement* [dimension] and LPAs associated with collaboration, e.g. *communicator, risk-taker*), and
- **Multilingualism**
  - (greater/multiple) language proficiencies (connects to *multilingualism* [dimension] and *communicator* [LPA]).

These five domains have been adapted from Savage's (2017) seven domains. Unlike IB's conceptualisation, identity is actively included in this model as a separate domain from multilingualism. However, while attitudes and dispositions are featured, moral and ethical values are not as strongly represented.

In summary, on an implementation level a general lack of conscientious critical engagement with notions of identity, values and attitudes, and a lack of proactive engagement with pressing global issues and concerns including social, environmental and political injustices, which are associated with a lack of global citizenship, have emerged (Castro et al., 2015). The criticism of lack of proactive engagement with pressing global issues has also been echoed by other researchers (e.g. Belal, 2017; Bruckner, 2016; Castro et al., 2015; Merryfield et al., 2012; Metli et al., 2019). Essentially, despite natural correlations in relation to core ideology between practice, research and IB documentation, there are not only observable differences and gaps at the implementation level, but also at the conceptualisation level (see figure 12). Unlike IB documentation, researchers and practitioners are more commonly identifying and articulating *attitudes*, *dispositions*, *values* and/or *identity* as an important element of IM in their conceptualisations. This is in line with the wider literature which consistently identifies these constructs as important elements of global, intercultural or cross-cultural mindsets, competences, and literacies or other closely related concepts (e.g. Byram, 1997, 2009; Byram & Golubeva, 2020; Fantini et al., 2001; Heyward, 2002; Merryfield, 2008; OECD, 2018; Wang et al., 2003; Zhu, 2011)

Furthermore, in the wider literature, the importance of an awareness of interconnectedness (Johnson, 2019; Merryfield, 2008) along with the ability to adapt (Ang et al., 2015; Alred & Byram, 2002; Byram & Golubeva, 2020; Hammer, 2011; Hammer et al., 2003; Leeds-Hurwitz, 2013; Merryfield, 2012; OECD, 2018; Williams-Gualandi, 2015) were emphasised as an important trait in the context of international understanding and intercultural competences (or related concepts). In light of these gaps, it has to be acknowledged, that while identity does find consideration in the context of multilingualism and the IBLP, this is mainly implied rather than openly addressed in IB documentation which may indeed lead to a lack of critical engagement in practice. Meanwhile, values and attitudes are addressed through IBLPAs, but are also not directly covered in the dimensions of IM or IB pedagogy in the way cognitive engagements are. The awareness of interconnectedness is mainly limited to cognitive awareness as represented in the IBLPA *balanced,* while the ability to adapt is not embedded in IB documentation. These points will be revisited in the context of this study's findings in chapter nine.

## Section 3: International Mindedness in the Context of this Study

The construct IM is not only connected to the field of IE but connects to a wider field of interculturality with a wide array of terms, constructs and their associated definitions (Sylvester, 2005, 2007). The range of concepts and definitions reflects both the complexity of the field as well as the varied emphases that authors, researchers and organisations are aiming to clarify and articulate. Much research and thinking has been invested into developing models and structures to explain IM (e.g. Haywood, 2007; Metli & Lane, 2020; Singh & Qi, 2013) as well as concepts related to international and intercultural understanding, competence and communication (Bennett, 1998, 2013, 2017; Byram, 1997, 2009; Byram & Golubeva, 2020; Deardorff, 2011; Holmes, 2014; Holmes & O'Neill, 2012; Spitzberg & Changnon, 2009; Sylvester, 2005). This section will establish the conceptualisation of IM adopted for this study. The section will further share reflections and views of the Arts and Arts education in the context of this conceptualisation. Therefore, it is important to briefly introduce the background of the Arts in the IB. The Arts are available in all four IB programmes.

In the PYP the Arts are considered as an important approach to learning and the development of students. In the PYP four Arts disciplines (Dance, Drama, Music and Visual Arts) may be accessed through transdisciplinary themes, inquiry-based learning and a concept-based approach. The choice of discipline(s) and approach to implementation of the Arts are mainly left to the individual school (IB, 2018b). The MYP approaches the Arts through an inquiry- and concept-based learning model. The MYP allows schools a certain level of freedom, but – while acknowledging that often more time is necessary – only requires a minimum of 50 hours per year in the Arts (as in other subject groups) across the Arts subjects offered by the school. In this programme, five subject areas are offered, namely Dance, Music, Theatre, Media Arts, and Visual Arts. The MYP Arts guide strongly recommends offering both, Visual and Performing Arts within the required 50 hours, but where the school context does not allow for this, the focus on one Arts subject is acceptable. In the last two years of the MYP programme the selection of Arts courses is entirely optional (IB, 2022h). It is important to note in this context that the MYP is advertised on the public IB website as a programme with emphasis on STEM subjects (i.e. Sciences, Technology, Engineering and Maths subjects) (IB, 2022c). In the DP and CP, engagement in the Arts is entirely optional (IB, 2022f). A recent research report on the status of Arts uptake at the DP level revealed that the Arts

were considered as inferior to other subject groups by some students, parents and school leadership. This was mainly due to the continued optional status of DP Arts subjects, designated by the IB. The research further identified that only 26% of (full) DP students and only 11% of Certificate students actually opted for a DP Arts subject. Roughly 25% of schools delivering the DP did not offer any Arts subjects at all, meaning that the Arts are not even an option for students attending such schools. In summary, the offer and uptake of the Arts in IB programmes remain underutilised in the DP and the Arts are undervalued by the IB and by the IB community (Elpus, 2019).

## Conceptualisation of International Mindedness Adopted in this Study

This study aimed to combine and simplify the closely related views or understandings into one model or conceptual frame. Essentially, the (complex) construct of IM with its shared ideology consists of three dimensions, namely *intercultural understanding, multilingualism* and *global engagement*, which have been established through IB literature and are anchored in the IB programmes and curricular approaches (IB, 2019a). These dimensions further break down into subdimensions (*knowledge and understanding*; *competencies and skills*; *attitudes, dispositions and values*; *behaviours and actions*) that have emerged from the literature. These subdimensions are interconnected and influence each other and are furthermore manifested in learners through a set of ten characteristics, namely the LPAs, which have been established by the IB but are contextually accessed within the IB community and diversely adopted, interpreted and individualised by leadership, teachers and students as discussed above. Looking at it from the reverse, the LPAs contribute to the development of the subdimensions, the dimensions and ultimately of IM in students (figure 13).
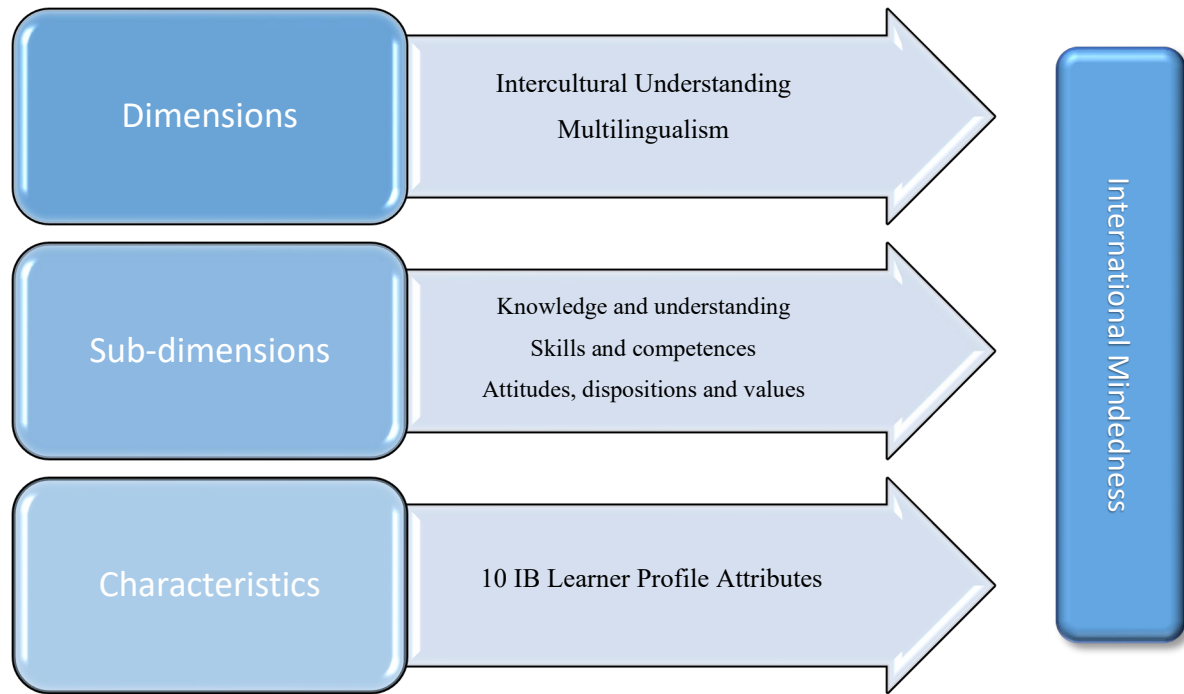
*Figure 13: Map of conceptualisation adopted for this study*

## Views on Arts Education in Relation to International Mindedness

A number of research studies have been concerned with the impact of engagement in and with the Arts on a number of domains (Iwai, 2002). However, empirical studies to support the desired or perceived benefits of the Arts, particularly with regards to cognitive development and academic performance, remain largely inconclusive (See & Kokotsaki, 2016; Winner et al., 2013). Nevertheless, philosophical debates and practical observations exist that emphasise the role of the Arts in the development of the characteristics and sub-dimensions associated with IM. The following passages will introduce philosophical and observational considerations and discussions regarding the role of the Arts in relation to the identified sub-dimensions and characteristics of IM. This study then aims to add empirical evidence to the impact of Arts education on the development of the sub-dimensions and characteristics of IM.

### *Knowledge and Understanding*

The subdimension *knowledge and understanding* (e.g. associated with the LPA: *knowledgeable*) is concerned with a demonstration of knowledge, understanding, awareness and appreciation of diverse cultural, social and global perspectives, practices, experiences, events, languages, etc.

While – in the context of knowledge and understanding – the Arts have at times been researched with regards to cognitive development, academic achievement or in relation to motivation in academic studies across curricular areas (identified or discussed, for example, in reviews such as Boyes & Reid, 2005;  Iwai, 2002; Winner et al., 2013) a link or connection with enhanced academic performance could not be established (See & Kokotsaki, 2016; Winner et al., 2013). However, although engagement in the Arts may not directly impact academic outcomes which are often highly valued by stakeholders especially in the context of an academically focussed programme such as the IBDP (Elpus, 2019; Lai et al., 2014), the Arts have been discussed in the context of their value in discovering knowledge, establishing understanding and making sense of the world. For example, the Arts are considered as a fundamental tool and a specifically human capacity to (re-)discover and (re-)imagine (or create) the world and everything in it (Eisner, 2002) which is an important aspect in holistic learning that the IB is associated with, for example in the development of intrapersonal understanding (Johnson, 2019). Furthermore, the fundamental role of imagination in perspective-taking has been acknowledged (Panjwani, 2014). Despite these considerations, imagine or create are not represented in the IBLP and notions of imagination or creativity do not feature in the development of IM (IB, 2019a).

Another interesting consideration with regards to intercultural understanding is that during engagement with the Arts, the question is never as much what all humankind has in common, meaning an unhelpful overgeneralisation, but to identify, understand, embrace, and work with diversity and differences (Fleming, 2021; Garfias, 2004; Geertz, as cited in Levitin, 2008; Harvey & Bradley, 2021). McVeigh (2015) argues that interculturalism and the Arts connect naturally, because the purpose of Arts is to bring out the unfamiliar, the different, the unexpected or unusual. It is not familiar aspects that we recognise or notice specifically, but that which is unfamiliar (Shklovsky, 1917, as cited in McVeigh, 2015) and in this sense, the Arts may be a resource to revive that which was lost through the overgeneralisations that took place in the process of 'familiarisation' processes during intercultural interactions or encounters (Fleming, 2021; Varhegyi & Nann, 2009). In fact, the Arts are a tool to 'defamiliarise' that which is common or familiar (Fleming, 2021; Shklovsky, 1917, as cited in McVeigh, 2015), to 'decentre' oneself and individual views (Fleming, 2021; Harvey & Bradley, 2021), "*to relativize and critique one's own values, beliefs and behaviours*" (Fleming, 2021: 12-13) so that the world may be 'rediscovered'

and understood in different and new ways (Fleming, 2021; McVeigh, 2015) and to uncover that which is hidden (especially if viewed through one's personal reference framework) (Harvey & Bradley, 2021).

In other words, the Arts differ from other subject areas, where the aim is often to identify the commonalities in our shared humanity and to reconcile difference into a 'common' understanding. Instead, the Arts offer a gateway, not just to accept difference, but to learn through and engage with diversity and difference constructively, imaginatively, and creatively (Phipps, 2019, as cited in Harvey & Bradley, 2021). The importance of this quality has been discussed in the context of *intercultural sensitivity* which is described as the ability to notice and experience cultural differences (Hammer et al., 2003) and as (inter)cultural awareness which requires an observant role in recognising diverse cultural values, perceptions, and beliefs (Quappe & Cantatore, 2007). This quality – inherent to the Arts - is considered to be a foundational principle for *intercultural communication* (Quappe & Cantatore, 2007; Zhu, 2011) but also for the development of IM, for example in the context of perspective-taking and open-mindedness. Based on these considerations, this study aims to identify if engagement with DP Arts courses has any impact on the development of intercultural knowledge and understanding.

### *Competences and Skills*

Competences and skills include, for example critical thinking and metacognition (LPAs: *thinker, inquirer, reflective*) and communication skills (LPA: *communicator*). In the context of critical thinking, Arts education has been discussed for its potential to foster inclinations of critical thinking, critical analysis and problem-solving (Boyes & Reid, 2005; Lampert, 2006; O'Farrell, 2014; Roege & Kim, 2013), the development of creativity along with divergent and innovative thinking as they are not bound to right or wrong solutions or answers (Pitri, 2013; Roege & Kim, 2013; Winner et al., 2013), the ability to consider the greater picture and to draw (unexpected) connections (Rattle, 2008, as cited in Putz-Plecko, 2008: 5), and with process-thinking that enhances learning and access to diverse cultures (O'Farrell, 2014; Pitri, 2013). However, there is little evidence available to demonstrate *how* Arts education supports the development of critical thinking. In this context it is important to remember that just as in any other discipline, purposeful curriculum and course design, well-trained and skilled educators, a meaningful pedagogy and

effective implementation (i.e. relevant approaches to teaching and learning) are essential in developing fundamental competences associated with IM (Abril, 2006; Eisner, 1997, 2005; Iwai, 2002; Roege & Kim, 2013).

The Arts are also considered as a means for effective alternative ways for cross-cultural communication (BMBF, 2012, 2015; Harvey & Bradley, 2021; Iwai, 2002; Levitin, 2008; Sousa, 2011), for dialogue and integration (Anttila, 2015). The engagement with the Arts allows us access to diverse cultures and enhances understanding through direct intercultural participation, for example arts-based research or creative practices. Here, the process of trust-building is transformative for both the guest artist who is immersing him/herself into a new culture through daily practice, as well as the 'hosts' of the culture (Balosso-Bardin, 2016). Examples of effective cross-cultural communication and dialogue through the Arts, for example in Music ensembles[33], are thought to foster equality and fairness in intercultural relationships as they are considered to be removed from social hierarchies, political prejudices and cultural conventions, but rather based on mutual respect and appreciation from within the artistic medium such as the music ensemble (Barenboim & Said, 2004; McKimm-Vorderwinkler, 2010; Said, 2009). Musicians in their cross-cultural communication through musical means have been described to closely resemble true world citizens (Walcott, as cited in Berendt, 2000).

Furthermore, the Arts are an important tool to communicate *about* cross-cultural issues such as "*migration, diversity and social inclusion*" (UN Secretary General, 2017: 12) and as a medium to offer counter-narratives to deflate overgeneralisation, stereotyping and prejudices (Jääskeläinen, 2020; Shields, 2015). In this context, the Arts may provide a valuable outlet for (self-)expression and cultural articulation (Iwai, 2002; Kent, 1980, as cited in Boyes & Reid, 2005; Laird, 2015; Marsh & Dieckmann, 2017; UNESCO, 2021a) along with effective alternatives to communicating, expressing, and representing aspects of culture in non-literal ways (Eisner, 1997, 2005; Levitin, 2006).

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[33] One example includes the *West-Eastern Divan Orchestra* which was formed by conductor Daniel Barenboim. It brings together young Arabic and Jewish musicians with diverse nationalities (Barenboim & Said, 2004; Said, 2009).

In addition, the Arts are associated with (intercultural) collaboration and cooperation (Speth, 2015; Tan & Tan, 2016) and the scope to develop competences for team- and group-work (Iwai, 2002) through an artistic and creative process[34] (Speth, 2015). Such collaboration, team and group-work (e.g. in music ensembles) in turn is also associated with increased interpersonal empathy and social and communal bonding (Groves & Roper, 2015; Hughes, 2011; Laird, 2015; McCarthy et al., 2004, as cited in Huges, 2011; Meiners & Garrett, 2015; Rbinowich et al., 2012; Verducci, 2000). In addition to the development of empathy (Rabinowitch et al., 2012), improvisation and participation in (music) ensembles and other forms of musical collaboration are associated with cooperation, respect, awareness and perspective-taking, relating and bonding, inter-personal consideration, and the development of emotional intelligence (Laird, 2015; Levitin, 2008; McKimm-Vorderwinkler, 2010).

However, empirical evidence on the role of the Arts in the development of competences and skills associated with intercultural communication and critical thinking is still limited to a few studies. Further research is needed to provide and consolidate the evidence for the practical and real-world observations. Questions for this study regarding the sub-dimension *competences and skills* include, if the DP Arts contribute to the development of critical thinking skills associated with IM, and if engagement with DP Arts enhances students' intercultural communication skills.

*Attitudes, Dispositions and Values*

Attitudes, dispositions and values focus on feelings related to empathy (LPA: *caring*), tendencies, characteristics and identity (LPAs: *open-minded* and *balanced*), and ethical outlook or worldview (LPA: *principled*). As mentioned in the previous section, with regards to *caring* attitudes, the Arts are associated with enhanced intercultural awareness, empathy and sensitivity towards others (Iwai, 2002; Kou et al., 2020; Lampert, 2006; Rabinowitch et al., 2012; Verducci, 2000), increased perspective-taking capacities (Iwai, 2002; Kou et al., 2020; Laird, 2015; Lampert, 2006; Verducci, 2000), and greater open-mindedness towards and acceptance of diverse others (Iwai, 2002).

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[34] In this context, the idea of *twinning* originated in post World War II times "*with the intention of promoting friendship, sharing and understanding*" (Speth, 2015: 168). Recent examples include twinning projects with dance students who are collaborating across distance and cultures with the intention of increasing intercultural understanding, competences and communication through the artistic, creative process (Speth, 2015).

Furthermore, engagement with the Arts has related to shaping of multicultural identities (Barenboim & Said, 2004), the formation of a positive self-image, identity, confidence and satisfaction (Boyes & Reid, 2005; Iwai, 2002; Meiners & Garrett, 2015; Nielsen & Burridge, 2015; Osborne, 2009, as cited in Marsh & Dieckmann, 2017; Roege & Kim, 2013; Sousa, 2011). The connection of Arts education with the development of identity and positive self-image has been the focus of projects in conflict areas. In times of crisis and conflict, Arts engagement and artistic expression have been observed to help people to live in and cope with, sometimes continued and unresolved, trauma and insecurity (Marsh and Diekmann,[35] 2016, 2017; Rowe,[36] 2015) and to re-establish a sense of normality and belonging (Marsh and Diekmann, 2016, 2017). In the context of working with students from migrant backgrounds, the Arts, and specifically Music and Dance, have been used as alternative forms of (intercultural) communication, bridging differences and promoting integration (Alsaleh,[37] 2014; BMBF, 2012, 2015; Sousa, 2011). The Arts are associated with increasing independence, efficiency, flexibility and commitment in young artists towards their work, the artistic and learning processes (Boyes & Reid, 2005; Pitri, 2013).

However, the Arts do not just contribute to a better self-image, but also to prosocial attitudes, behaviours and actions (Anttila, 2015; Boyes & Reid, 2005; Iwai, 2002; Kou et al., 2020; Osborne, 2009, as cited in Marsh and Diekmann, 2017). In this context, the impact of Arts education on the inclusion and integration of marginalised or disaffected youths or populations has also been stipulated (McKeon, 1982, as cited in Boyes & Reid, 2005). This is partially accredited to embodied learning with positive impact on emotional well-being, prosocial engagement, and empathy towards others (Anttila, 2015). In connection with well-being, an improvement of students' life-balance and life-skills has been noted (Roege & Kim, 2013). Within this context of personality and character-building, Arts education is also credited with students' ethical, spiritual, moral and aesthetic development (Iwai, 2002; Tan & Tan, 2016) along with the generation of

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[35] Marsh & Dieckmann (2016, 2017) suggest that musical games, activities and play aid traumatised children (e.g. displaced or refugee children and people from conflict regions) to cope with (post-traumatic) stress and dispersed anxieties, to re-establish a sense of belonging, to find ways of expressing themselves and to integrate into new communities.

[36] Rowe (2015) writes about an initiative to foster Arts (Dance) education in Palestine which is aimed at supporting the community to rediscover their voice and to manage to find 'normality' in every-day life which is dominated by stress, loss and on-going trauma.

[37] The integrative effects of engaging with Music and Dance has been noted in a project with Syrian children and Iraqi refugee children in a project presented by Tarek Alsaleh (2014) in *The Hague Talks*.

associated attitudes and values (Buck, 2015; Munteanu et al., 2013; Roege & Kim, 2013; Sousa, 2011). In relation to the literature on attitudes, dispositions and values (along with the development of students' identity) the study aims to identify, if engagement in DP Arts-courses impacts the development of this sub-dimension of IM in a similar way.

*Behaviours and Actions*

As discussed earlier, global engagement is reflected in a willingness to act on pressing local and global issues (LPA: *risk-taker*). In this context, the Arts offer a range of opportunities for local and global involvement. For example, the Arts have been deployed as a means to connect to and act on environmental issues. Through a new field of *'Environmental Art Education'* (also known as *Eco-art education*), an empathetic understanding of the world and the environment is developed in student artists and audiences. Eco-art education fosters proenvironmental mindfulness, attitudes, engagements and actions (Sunassee et al., 2021). Other projects are driven by the idea to bring reconciliation and mutual understanding amongst hostile cultures. For example, intercultural community Arts projects are aimed at addressing and positively impacting the friction of ethnical disconnect and clashes in Northern Ireland. The Arts have become an important catalyst to counter prejudice and hate whilst promoting intercultural understanding, respect and harmony (Shields, 2015). Theatre education projects have been deployed based on the conviction that theatre is a reflection of (the drama of) everyday life and societies and that through theatre education the diverse realities of life, cultures and societies can be accessed, debated, understood, and illuminated from different perspectives. Theatre education has been used as a medium with students from different backgrounds to interact with each other, wrestle with and overcome dividing thoughts, perception, prejudices and engrained cultural (mis-)conceptions (Schonmann,[38] 1996). Similarly, '*Arts and Media*' projects are used to access and process everyday experiences or political events, to generate space and scope to tap into one's emotions, to discover oneself in connection to diverse others, to shape identities, to develop citizenship, whilst also discovering one's creative, artistic and transformative voice for expression about global or local issues (Savva & Telemachou, 2016).

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[38] The paper by Schonmann (1996) focussed on education for peace and non-violent problem-solving in areas of conflict – here the conflict between Jews and Arabs in Israel and Palestine – through theatre practice.

However, there have been concern within the Arts community and among Arts educators associated with undifferentiated approaches to Arts education projects especially in conflict regions, but also with the risks associated with well-intended Arts-intervention programmes. For projects in conflict regions, there are actual hazards associated with the engagement of students and teachers when they gather in high-risk areas (O'Farrell, 2014; Schonmann, 2002), but also where the engagement with diverse populations or specific Art forms may be viewed with suspicion. In the context of this study, a consideration for investigation includes, if, in the light of the different possibilities that the Arts projects have to offer, engagement with DP Arts-courses impacts and enhances students' willingness to act on local and/or global issues.

## Section 4: Measuring International Mindedness

This section presents the development of a ranking scale to measure IM used in this study based on four existing surveys. In this section, approaches to measuring IM will be surveyed based on new or existing survey tools. Depending on the interpretation, model or conceptualisation of a construct (for example, IM, IC, or others) an assessment tool is usually either developed or adjusted from existing tools (Sinicrope et al., 2007). At the time this study commenced in 2014, no survey tool for measuring the dimensions of IM had been developed. Research relating to IM had focussed largely on qualitative investigations, for example interviews, focus groups, and qualitative surveys (Baker & Kanan, 2005; Bruckner, 2016; Hacking et al., 2018). More recently, studies have emerged which also included mixed-method designs, deployed existing surveys to measure related concepts or developed various quantitative survey tools to measure dimensions related to IM as will be discussed below. The quantitative survey for this study is based on existing survey tools. The choice of survey instruments to develop the quantitative section of the international mindedness survey (IMS) will be explained by connecting the dimensions measured by the surveys with the dimensions of IM as adopted in the conceptualisation for this study.

### Approaches to Measuring International Mindedness

In 2016, Walker et al. developed an *IBLP Questionnaire*. The questionnaire was based on Bullock's (2011) categorisation of the LP into four categories, namely the *cognitive*, *affective, conative (personal)* and *cultural/social* categories or domains as discussed earlier in this chapter. The survey was limited to one LPA per category (*knowledgeable* for the cognitive domain, *caring*

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for the affective domain, *inquirer* for the conative domain, and *open-minded* for the social domain), meaning a total of four LPAs were included in the questionnaire. This validated survey instrument was, however, limited in relevance and applicability to students and stakeholders from the Asia Pacific region and not based on random sampling (Walker et al., 2016). Kamaruddin & Matore (2021) developed an IBLP Survey instrument which included all LPAs. The instrument was developed using the Rasch model in combination with confirmatory factor analysis suggesting the instrument was robust, valid and reliable. However, the survey is only available in Malay and was developed in a limited number of schools in Malaysia using a small samples size, meaning further studies are needed to test the generalisability of findings and applicability of the survey in a larger global context and in more diverse student populations (Kamaruddin & Matore, 2021).

In measuring dimensions of IM, Metli's (2018) study followed a mixed-method survey design in which he identified two existing surveys in order to measure two of three dimensions of IM. Metli used the *Global Citizenship Scale* (GCS) (Morais & Ogden, 2011) to measure global engagement and the *Intercultural Development Inventory* (IDI) (Hammer et al., 2003) to measure intercultural understanding in students. For the third dimension of multilingualism, Metli (2018) used demographic data to identify proficiency and variety in participants along with participant perceptions of how the DP core components (TOK, CAS and the EE) support the development of "*their ways of thinking and linguistic awareness*" (Metli & Lane, 2020: 210; Metli, 2018; Metli et al., 2019; Metli, 2021). Aiming to capture IM through a closely linked construct – namely global mindedness (Singh & Qi, 2013) – Gándara et al. (2021) used a quantitative survey approach utilising the World Values Survey, a pre-existing survey tool measuring concepts related to IM, in order to identify the levels of global mindedness between first year and second year DP and CP students in six countries in comparison to their non-IB peers in those same countries, and to identify any gender-related differences in levels of global mindedness (Gándara et al., 2021).

Focussing on related concepts, a study by Parish (2021) also employed a mixed-method design to investigate the outcomes of human rights values and thinking in two schools (i.e. a private school in Norway and a state-funded school in Poland). The researcher used three scales as part of one survey in the quantitative phase of the research design. Scale one was the *Scale of Human Rights Attitudes and Behavioural Intentions* (HRAB) (Ajzen and Fishbein, 1975, 1979, 1980, as cited in

Parish, 2021) to identify if students' attitudes and behaviours align with IB's aim to develop students who "*create a better and more peaceful world*" (IB, 2022a; Parish, 2021: 6). Scale two was the *Scale of Ethno-cultural Empathy* (SEE) (Wang et al., 2003) to identify levels of empathy (LPA: *caring*) (Parish, 2021). The third scale was the *All Humanity Scale* (IWAH) (McFarland, et al., 2012, as cited in Parish, 2021) to *"measure the extent to which students identify with all human beings [...]"* (Parish, 2021: 6). The researcher also conducted semi-structured interviews with selected IBDP students and the IBDP coordinators in each school during the qualitative research phase of this study (Parish, 2021). A study by Tocci et al. (2021) also worked with a mixed-method design consisting of a survey and qualitative case studies of selected Chicago public/state schools using lesson observations, interviews, focus groups and curriculum documentation to identify the understanding and approaches to teaching and learning of IM by MYP teachers. A mixed-method design was also used by Kidson (2019, 2021) using interviews and surveys with principals in Australian IB schools.

Various approaches to measuring IM have been deployed, including purely qualitative, purely quantitative and (increasingly) mixed-method designs, the latter being the approach adopted in this study. The quantitative approaches either used existing surveys or aimed to develop a survey tool. However, those who aimed to develop a survey tool focussed mainly on measuring the IBLPAs. Studies that aimed to measure closely related constructs made use of existing surveys which is the approach taken for the quantitative part of the survey used for this study.

### Selection of Instruments for this Study

A number of thoroughly researched and validated tools are available to measure concepts related to or dimensions of IM. In the context of this study different tools have been considered with regards to their fit with the adopted conceptualisation along with practical considerations (outlined in chapter four, section one: Methodology). The surveys which have been chosen for this study and used with the permission of their authors include the:

- Global Perspective Inventory (GPI) (Merrill et al., 2012),
- Cultural Intelligence Scale (CQS) (Ang et. al, 2007; Van Dyne et al., 2015),
- Scale of Ethnocultural Empathy (SEE) (Wang et al., 2003), and
- Global Citizenship Scale (GCS) (Morais & Ogden, 2011).

Below, these surveys will be summarised and their connection to the conceptualisation of IM and the emerging IMS will be explained.

*Global Perspective Inventory (GPI)*

The GPI is based on considerations of *holistic development* which form the basis for an IB education and for developing IM. The survey was developed with a diverse range of participants in mind, meaning that it is valid across backgrounds, ages and/or stages of life (Merrill et al., 2012) making it applicable for the DP students' age group. The GPI measures the three domains *cognitive*, *interpersonal*, and *intrapersonal* development. According to the authors, each of these constructs can be broken down into the same two conceptual angles, namely *intercultural maturity* - also called *cultural development* - and *intercultural communication* (Merrill et al., 2012). In this sense, *global perspective* manifests itself in two forms with one relating to a person's development and as such his/her personal identity (i.e. intercultural maturity) and the other connecting to an observable outcome or visible expression (behaviours) of the person's development (i.e. intercultural communication). This has been described as "*the difference between […] being intercultural and behaving as an intercultural citizen*" (Byram & Golubeva, 2020: 70). This means, each construct has two sub-scales that measure the two conceptual angels of each of the constructs. Consequently, the GPI consist of three scales with two sub-scales each. The premise of the authors is that cognitive, interpersonal, and intrapersonal development do not appear in isolation, but evolve hand-in-hand (Merrill et al., 2012). The scales and sub-scales measure the following aspects: The *cognitive domain* is concerned with the critical engagement with knowledge, including considerations of truth, diverse perspectives, and the complexities of knowledge and knowing. It also considers the participants' critical consideration of sources and authorities. The category is divided into 'knowledge' and 'knowing' (Merrill et al., 2012).

GPI: Cognitive Domain

   o  **knowledge** (*intercultural communication*)

This sub-category captures the knowledge and understanding of diverse cultures, intercultural affairs, and multi-lingual proficiency (Merrill et al., 2012). Questions from this sub-scale are conceptually connected to the sub-dimension *knowledge and understanding* in this study and the

IMS. The questions connect to the attribute or competence of being *knowledgeable* about global and intercultural matters.

     o **knowing** (*intercultural maturity*)

This sub-category captures participants' *competences and skills* of critical thinking about knowledge and ways of knowing, an awareness of complex knowledge systems, and considerations of diverse perspectives in intercultural contexts (as opposed to the unchallenged acceptance of preconceived ideas) (Merrill et al., 2012). This sub-scale provided questions relating to the IBLPAs *thinker* and *inquirer*.

## GPI: Intrapersonal Domain

The *intrapersonal domain* is concerned with being mindful of and attuned to one's own qualities and identity in diverse contexts, as well as being able to refine one's own personality and identity, and ultimately one's direction and philosophy for life within complex and diverse environments. The authors group the items in this domain into the two categories 'affect' and 'identity' (Merrill et al., 2012). The questions in this domain are connected to the sub-dimension of *attitudes, dispositions and values* in this study.

     o **Identity** (*intercultural maturity*)

This sub-category measures the appreciation and mindfulness of, and respect for one's personal identity and background (Merrill et al., 2012). Questions from this sub-scale related to the attribute *principled.*

     o **Affect** (*intercultural communication*)

This sub-category measures the person's regard and appreciation for diverse opinions and viewpoints, as well as the ability to deal with people in cross-cultural situations or contexts (Merrill et al., 2012). Questions from this sub-scale were associated with the attribute *open-mindedness.*

## GPI: Interpersonal Domain

The *interpersonal domain* focusses on a person's inclination to connect and engage with people from diverse backgrounds including culture, ethnicity, social status, etc. This includes the ability to relate and connect to other people, to accept different perspectives, and to recognize the interconnectedness with people including shared responsibilities in life (Merrill et al., 2012). This notion relates to descriptions in IB documentation of students developing an awareness of their

"*deep interconnectedness to others*" and an appreciation of "*their common humanity and shared guardianship of the planet*" (IB, 2019a: 2). The two scales for this construct include 'social responsibility' and 'social interaction'.

- o **Social responsibility** (*intercultural maturity*)

This sub-scale of the GPI measures participants' awareness of their interconnectedness with others and the level of care for people from diverse backgrounds (Merrill et al., 2012). In the emerging IMS, questions from this sub-scale are associated with the sub-dimension *behaviours and actions* along with the LPA *risk-taker.*

- o **Social interaction** (*intercultural communication*)

This sub-scale measures the involvement with people from diverse backgrounds, and their (cross-) cultural sensitivity, empathy and awareness (Merrill et al., 2012). In the emerging IMS, questions from this sub-scale are associated with the sub-dimension *attitudes, dispositions and values* specifically with the LPA *caring.*

While this scale covers several aspects of IM, it does not offer questions that would test students' *competences and skills* relating to the LPA *communicator*. Also, the scale did not include questions to address the LPA *inquirer.* While the sub-scales for engagement or 'will-to-act' includes a focus on 'a desire to bring change' and 'service with the community', they did not specifically capture a will to act globally (i.e. motivation) or forms of engagement (i.e. behaviours). These were then supplemented from the surveys introduced next.

*Cultural Intelligence Scale (CQS)*

The focus of the concept *cultural intelligence* (CQ) is on the ability of bridging intercultural differences, as opposed to simply recognising these. Furthermore, CQ constitutes the ability to operate effectively across diverse cultural contexts and environments meaning the ability to transfer the capacity to behave adequately in or adapt to *one* different culture to *any* culture or cross-cultural situation (Ang et al., 2015). CQ is distinct from other intelligences as it captures the aptitude or capacities of a person to act and interact successfully in cross-cultural situations, to be flexible and resilient in diverse sometimes evolving contexts or environments, and to be adaptable in the interconnectedness of global societies. CQ, along with other intelligences (e.g. IQ and EQ), demonstrates a capacity or aptitude to approach life, including work and human relations,

competently and efficiently, and to be able to build effective connections with others (Van Dyne et al., 2015).

CQ contains four dimensions or domains, including a cognitive domain (intercultural knowledge and understanding), a metacognitive domain (critical inquiry, thinking and reflection to access intercultural knowledge), a motivational domain (the ability to maintain momentum throughout cross-cultural situations and interactions), and a behavioural domain (the adaptability in or to cross-cultural situations) (Ang et al., 2003; Ang et al., 2015; Earley & Ang, 2003; Van Dyne et al., 2015). The behavioural domain contains important aspects for effective cross-cultural interactions, such as culturally relevant and appropriate verbal communication and non-verbal demeanor or mannerisms which are an important – although silent – aspects of cross-cultural interactions. People with elevated behavioural CQ tend to be particularly adaptable in cross-cultural situations as they adjust their actions and demeanor depending on the interaction (Ang et al., 2015). The authors break the capability of effective interactions down into three concepts:

### CQS: Mental CQ (Cognition and Metacognition)

Mental CQ is divided into the two related categories, cognitive and metacognitive CQ. Cognitive CQ describes an appreciation of and expertise in cultural standards, customs and traditions together with an awareness of similarities and differences of these across cultures. It forms the basis of all encounters in cross-cultural situations and influences the thought processes behind our decisions and (inter)actions. Metacognitive CQ, on the other hand, focusses on cross-cultural mindfulness which effectively influences and fosters effective engagement and interaction in cross-cultural circumstances or situations with diverse individuals or groups of people. As a result of effective interactions, metacognitive CQ allows people to challenge and correct stereotypes and preconceived ideas or presumptions (Van Dyne et al., 2015). With regards to the conceptualisation of IM in this study, the mental domain of CQ relates to the category of cognition and the sub-dimension of *knowledge and understanding* (LPA *knowledgeable*) as well as the category *competences and skills* with LPAs associated with critical thinking (*inquirer, thinker, reflective)*). The sub-scale on metacognition in Mental CQ differs from the sub-scale cognitive knowing in the GPI in that it focuses on the outcomes of critical thinking, such as adjusted interactions and

behaviours. This type of adjustment adds another perspective to notions of critical thinking in the emerging IMS.

### CQS: Motivational CQ

This sub-category describes how effectively people engage in or with diverse contexts, situations and interrelations. This sub-category presumes a level of certainty and self-belief as well as a curiosity of the unknown which are needed for effective intercultural or cross-cultural interactions. In this sense, this sub-category captures aspects of a persons' identity and self-awareness or mindfulness. Based on a sense of self-belief and confidence, motivational CQ captures the capacity, enthusiasm and drive to engage with culturally diverse encounters and circumstances (Van Dyne et al., 2015), connecting it to the sub-dimension of *behaviour and action* in the conceptualisation of IM in this study.

### CQS: Behavioural CQ

Behavioural CQ refers to the ability to express oneself suitably in cross-cultural situations or encounters using verbal and non-verbal forms of expressions such as gestures, motions or body language, including those that carry the potential to conceal messages or to communicate in indirect ways (Van Dyne et al., 2015). Regarding the conceptualisation for this study, questions from this sub-scale connect to the sub-dimension *competences and skills* and specifically the LPA *communicator*.

### *Scale of Ethnocultural Empathy (SEE)*

The Scale of Ethnocultural Empathy (SEE) was developed to measure peoples' interpersonal empathy in intercultural settings by focussing on actions, behaviours and relations in cross-cultural situations, interactions or encounters (Wang et al., 2003). However, research by Rasoal et al. (2011) suggests that there may be high correlations or interdependencies between ethnocultural empathy and basic empathy. Nevertheless, ethnocultural empathy specifically captures how people relate to diverse others or in other words to walk the famous mile in someone's shoes, meaning the ability to relate to someone else's feelings (Strayer and Eisenberg, 1987, as cited in Wang et al., 2003). Through their review of literature, the authors conclude that empathy is an inherently human trait which fosters philanthropic and altruistic attitudes, behaviours and actions and is essential to all

interpersonal interactions and relations. The authors initially established three main traits of empathy, which include intercultural empathy, empathic emotions and communicative empathy (Wang et al., 2003). These traits evolve over time either developmentally (Quintana, 1994; Quintana et al., 1999 in Wang et al., 2003) or educationally (e.g. through learning) (Ridley & Lingle, 1996 in Wang et al., 2003). Due to the identification of and break-down into sub-categories and levels, the complex construct of *ethnocultural empathy* can be assessed, and – owing to the evolving nature of the characteristics – outcomes of these assessments can be compared in pre- and post-tests as well as inter-group comparisons (Wang et al., 2003). The scale is a quantitative assessment self-reporting tool that was derived and validated through three studies (Wang et al., 2003).

Questions of these four sub-categories of this scale were allocated to related concepts in the IMS. This scale was added to the selection of survey tools as empathy in intercultural contexts had not been captured in the other tools. Empathy closely relates to the LPA *caring*, but is also implicitly embedded in other LPAs, for example being *reflective* in consideration of others, or being a *risk-taker* whose concerns about the welfare of others is driving someone's willingness to act. The four strands of the SEE measure:

### SEE: Empathic Feeling and Expression

Empathic feeling and expression capture a person's apprehension and sensitivity towards expressions of racism, inequity and intolerance, as well as the reaction towards the feelings and experiences of people from diverse backgrounds which are a result of intolerance or discrimination. Empathic feeling and expression are evidenced or demonstrated through the person's thinking or reasoning, verbal expression or actions and gestures (Wang et al., 2003). This scale relates to two sub-dimensions in the conceptualisation of IM for this study, namely empathic feeling in connection to *attitudes, dispositions and values* (specifically the LPA *caring*) and empathic expression in connection with *behaviours and actions.*

### SEE: Empathic Perspective Taking

Empathic perspective taking represents a person's ability to appreciate and comprehend experiences and feelings from the angle or standpoint of people with diverse backgrounds (Wang

et al., 2003). Questions from this sub-scale are related to the sub-dimension *competences and skills* along with the LPAs associated with critical thinking (*inquirer, thinker, reflective*).

### SEE: Acceptance of Cultural Differences

This sub-scale measures the appreciation of cultural conventions and practices of people from diverse backgrounds (Wang et al., 2003). Questions from this sub-scale related to the sub-dimension *attitudes, disposition and values*, specifically the LPA *open-minded.*

### SEE: Empathic Awareness

Empathic awareness is a person's appreciation and understanding of experiences and feelings related to incidents of racism, intolerance or unfairness due to people's diverse cultural background. None of the questions from this strand were chosen for the emerging IMS, because questions were not as suitable across the diverse global contexts for which the IMS was intended, and the description of the sub-dimension were not well compatible with IM.

### *Global Citizenship Scale (GCS)*

The GCS was developed to measure the dimensions and categories of the complex construct of *global citizenship* which is closely related to IM and notions of global engagement as discussed above. The GCS was intended to measure the effects of programmes that sent students abroad (i.e. at college level) for a set amount of time to gain intercultural experiences and to develop intercultural understanding (Morais & Ogden, 2011). This made the scale relevant in this study's pre- and post-test research design. The scale was designed for group versus control group comparisons and therefore did not presume specific (living-abroad) experiences (Morais & Ogden, 2011), making it appropriate for comparison between student-groups (DP Arts-students versus DP Non-Arts-students) in this study. The scale was developed through grounded theory for undergraduate students (around 17 or 18 to early twenties), similar to the age group of DP students (ages 16 to 19) which makes the questions from the survey linguistically appropriate for DP students. However, because the review of literature on which the scale is based was limited to mainly Western sources and the operationalisation to the work with experts from a North American context (Morais & Ogden, 2011) questions were considered in relation to their suitability in diverse global contexts and removed if they were not appropriate. Global Citizenship as identified by

Morais & Ogden (2011) includes three dimensions, namely *social responsibility, global competence,* and *global civic engagement.* These three dimensions are further divided into the following sub-categories:

## GCS: Social Responsibility

This scale contains three sub-categories measuring attitudes and behaviours pertaining to

- understanding the interrelatedness with others, with society, and with the planet, and being aware of the effects and consequences of personal and communal actions (*global interconnectedness and personal responsibility*),

- thinking critically about societal problems, injustices and inequalities (*global justice and disparities*), and

- considering other perspectives, developing an awareness of interdependence, and getting involved to bring change (*altruism and empathy*).

According to Morais & Ogden (2011), in the factor analysis two of the three sub-dimensions (*global interconnectedness and personal responsibility* and *altruism and empathy*) did not match with the emerging factors leaving doubt as to the theoretical construct of this scale (Morais & Ogden, 2011). Because of this, questions from this dimension, now solely relating to *global justice and disparities*, were not included in the emerging IMS. In hindsight this is regrettable, as this dimension would have added a valuable perspective to the category critical thinking – to "*critically consider power and privilege*" (IB, 2019a: 2), and would have related well to the definition of the LPA *thinker:*

> "*We use critical [and creative] thinking skills to analyse [and take responsible action on] complex problems. [...]*" (IB, 2019: 3)*.

## GCS: Global Competence

This scale contains three sub-scales which measure

- the awareness of and interest in other cultures, global affairs, universal events and current circumstances (*global knowledge*),

- the awareness and understanding of one's own strengths, abilities and limitations when interacting in intercultural situations and across contexts (*self-awareness*), and

- the range of skills to communicate, interact and engage across contexts and intercultural situations (*intercultural communication*).

The three subdimensions were validated through factor analysis and the reliability of these factors was found to be moderate (Morais & Ogden, 2011). With these three sub-scales, *global competence* adds valuable aspects to the emerging IMS, for example with regards to *competencies and skills* and the LPA: *communicator*, which include the understanding of one's personal identity in relation to others, the ability to connect and operate across a variety of contexts, and the ability to communicate in various ways depending on the demands of the situation (Morais & Ogden, 2011).

## GCS: Global Civic Engagement

This scale also includes three sub-scales, which focus on actively getting involved through

- volunteering and community engagement via local organisations (*involvement in civic organisations*),
- engaging in different forms of activism through which students shape their voice and make themselves heard (*political voice*), and
- making a difference in situations and circumstances starting from a local level, via national affairs and eventually towards global events (*global civic activism*) (Morais & Ogden, 2011).

The notion of involvement and engagement in this category technically matches well with IM's dimension of *global engagement*. However, two of these sub-scales concentrated on students joining volunteer work with specific time increments (i.e. within 6 months) that did not match well with the demands of the DP requirements. For this reason, no questions were retained from this survey category.

## Summary

This chapter has offered insights into IM from different perspectives. The shared ideology along with criticisms and practical research findings demonstrated the complex, vibrant and contextual nature of IM. A discourse into IB documentation offered a theoretical foundation of the intentions and vision surrounding this complex construct. In this context, the IBLPA definitions were broken

down into themes which will form the basis for the qualitative analysis of open-ended survey responses. Conceptualisations, frameworks and attempts at mapping IM identified from the research literature connected the theoretical foundations with the practical understanding which various stakeholders, for example educators and students, school leadership and administrators, and researchers, have adopted when working and engaging with the construct of IM. From this, a conceptualisation for this study was generated and presented, along with findings relating to the impact of Arts education on the development of characteristics associated with the sub-dimensions of IM. Resulting from this conceptualisation, the quantitative IMS was developed based on existing surveys, which connect to the dimensions and sub-dimensions of IM identified throughout this chapter.

# Chapter 4: Research Design

## Introduction

This chapter focusses on the research design of this study with a focus on the deployed methodology and methods, the theoretical and philosophical considerations underpinning the study and ethical aspects. Generally speaking, there is no one way or best-fit in choice of research philosophy (Saunders et al., 2019) and naturally, there is no shortage of disagreements and suggestions regarding 'best-practice' (Bryman, 2004; Crotty, 1998; Guba & Lincoln, 1994; Leavy, 2015; Pring, 2015; Robson, 2002; Saunders et al., 2019). This chapter is intended to outline the researchers' philosophical position in order to explain and justify the research interests (Saunders et al., 2019), the design choices (as opposed to those design options that were discarded) (Johnson and Clark, 2006, as cited in Saunders et al., 2019), the research decisions that may have been guided by the researchers' beliefs (Crotty, 1998; Mertens, 2010; Saunders et al., 2019) and any other potentially influential aspects, such as technical constraints or affiliations (Guba & Lincoln, 1994; Leavy, 2015; Pring, 2015). Through this process of uncovering the practical, technical, theoretical and philosophical considerations, it is hoped that the rigor of the research design and research outcomes will be effectively supported (Crotty, 1998; Pring, 2015).

The chapter begins with a review of the research focus, the research questions and the research design. This is followed by two technical sections describing the methodology and methods of this study, along with theoretical considerations which are intrinsically connected. This is followed by a section explaining epistemological and ontological considerations to help place the research design into a wider context of philosophical underpinnings. In this way and in line with the pragmatic orientation of this study (Morgan, 2007, as cited in Doyle et al., 2009), the development of the research process is first uncovered and then justified in the context of the underlying philosophical beliefs of a critical realist view with pragmatist tendencies. The structure of the chapter leans on the description of the research process introduced by Crotty (1998) who identifies four distinct parts to the research process including the choice of epistemology, the theoretical perspective(s), the methodology, and the methods. According to Crotty (1998) these four aspects of research design are interconnected and inform each other in all directions, for example the choice of *epistemology* influencing and being influenced by the *theoretical perspective(s)*, which lead to, but are also determined by, the chosen *methodology*, and eventually the choice of *methods*

which also 'backwash' into the previous three positions. Thus, the research process and design can also be approached from the levels of methods and methodology, to then explain philosophical considerations. In fact, many researchers start their research with an actual problem which leads them to a research question. Based on the problem, situation and research question, further issues may be identified after which objectives and aims for a study can be identified. The researcher then identifies relevant strategies to approach the question and in this way the research design is conceived. The methodological choices and decisions are substantiated and supported by philosophical considerations to create credible results and defendable outcomes (Crotty, 1998). Table 4 (overleaf) offers a visualisation of the steps and consideration taken in this study to establish the methodological approaches from one end and philosophical considerations from the other end, much like two sides of the same coin.

---

**Researcher**
*Identifies a research focus/topic and asks research questions.*
*The researcher adopts a scientific approach as described by Robson (2002).*

↕

**Methodology and Methods**
*Based on the research focus as well as considerations about practicalities connected to the research, the researcher decides on the most relevant methods and methodology to answer the research questions.*

↕

**Philosophical positions**
*The researcher identifies his/her philosophical positions.*

Positivism                                                                      Interpretivism

Constructionism/Constructivism

Post-positivism
                                                  Critical inquiry/theory
                                                                          Postmodernism

Critical realism
                                    Pragmatism

←——————————————→

**objective**                          **constructed**                          **subjective**
Objectivism              Constructionism/Constructivism                  Subjectivism
Positivist                                                                      Non-positivist
Realist                                                                         Relativist

---

**A spectrum of views**
*The researcher positions his/her belief system on a spectrum between objective and subjective.*

↕

**Ontology** [Beliefs]
**Epistemology** [Assumptions]
**Axiology** [Values]

*The researcher identifies his/her belief system including beliefs, assumptions and values.*

↕

**Researcher**
*Identifies a research focus/topic and asks research questions.*
*The researcher adopts a scientific approach as described by Robson (2002).*

## Section 1: Methodology

The basis of this study is a real-world research problem, namely the impact of Arts education in developing IM in light of an increasingly globalising world. As is typical for real-world research-problems, these naturally lead to a few (broader) questions (Crotty, 1998) relating to the conceptualisation and measurement of IM among students engaging with the Arts, versus students not engaging with the Arts. As the Arts are optional at the IBDP level, meaning some students opt for a DP Arts course (DP Arts-students) and others do not opt for a DP Arts course (DP Non-Arts-students), this provided a natural scenario for comparison of those two groups. Furthermore, the DP is a two-year course which allowed for the investigation of IM-related attributes in students as they embarked on the DP and when they completed the DP. In this context, the following research questions emerged:

1. Is there a difference in IM in students taking the DP at an early point of the programme versus the endpoint of the programme?
2. Is there a difference in the development of IM between DP Arts-students and DP Non-Arts-students?
3. To what extent does students' understanding of the IBLPAs correlate with the IB's definition of these attributes?

### Research Strategy

The conceptualisation of IM as the basis for this study was established through the review of literature (chapter three). Based on the conceptualisation and the review of existing measurement tools, a self-completion survey with quantitative and qualitative sections was developed through which primary data were collected. The sections included:

- a mandatory quantitative section to identify students' self-perceptions relating to key competences associated with IM
- an optional qualitative section with open-ended questions relating to IBLPAs
- a demographic section to provide explanatory data

- (not featured in this study: a 'call for action' asking students to submit work that demonstrates their level of IM along with a rationale for their choice)

The research followed a repeated measures (longitudinal), comparative, and mixed method design to answer the research questions. To identify if students developed IM throughout their DP, the repeated measures (longitudinal) design was chosen. Data were collected at two time points: early on in the two-year programme and towards the end of the programme. The first data collection took place a few months into the DP in order to allow teachers and students to settle into the programme. The second data collection was conducted slightly before the end of the DP to ensure it did not interfere with end-of programme examinations. However, a few students chose to complete the survey just after their exams. The repeated measures approach of this study relates to research undertaken by Metli (2018) which aimed to identify the development of IM in students throughout the DP through a pre- and post-test over one year, meaning a repeated measures approach.

As this study investigates the effect of the dependent variable (i.e. engaging with a DP Arts course in comparison to not taking a DP Arts course) on a dependent variable (i.e. the development of IM), this study is considered a *comparative* research design (Brewer & Kuhn, 2010). The study further followed a non-experimental or quasi-experimental design in the sense that the independent variable, namely the option for or against Arts courses, were not influenced in any way, meaning no allocation of students to either of the two groups took place. To investigate if there was a difference between DP Arts-students and DP Non-Arts-students (independent variable) in development of IM (dependent variable) over the course of the two-year programme, data for this study were collected in an *ex post facto* fashion, meaning the research took place after students had made the option for or against taking a DP Arts course. Precedent to this approach is found in Metli's (2018) study, which also followed a comparative design in comparing three schools, namely an international, a national, and an alternative school to identify if the development of IM was indeed related to students' exposure to the IBDP.

As mentioned above, in addition to demographic information, the study collected both quantitative and qualitative data, leading to a partial mixed method design. This means quantitative and qualitative data were collected but in a segregated form which only connected the two at the point of discussion (Doyle et al., 2009; Saunders et al., 2019). Mixed method designs are typical for pragmatist approaches (Robson, 2002; Doyle et al., 2009) as they are better positioned to address

complex research problems (Doyle et al., 2009), but they are equally agreeable with critical realist positions. The main purpose of the use of a mixed method design for this study was:

- the triangulation of quantitative outcomes with qualitative results,
- to gain a better insight into students' understanding, for example of
  - key attributes associated with IM,
  - any differences of understanding between the two groups,
  - changes in understanding over the course of the DP, and
- to minimize some of the limitations associated with either of the approaches, for example
  - the lack of nuanced understanding that may be derived from large-scale and anonymised data collection tools, or
  - the lack of larger context in studies that focus on individual or small populations (Doyle et al., 2009; Leavy, 2015; Robson, 2002).

The quantitative and qualitative data were collected concurrently through the survey, with both methods receiving equal importance and attention during data collection and analysis. The integration of approaches took place during the interpretation of results in the discussion, which is in line with partial mixed-method approaches (Leech and Onwuegbuzie, 2007, as cited by Doyle et al., 2009) and suggests a *concurrent triangulation* design (Doyle et al., 2009). Utilising the strength of each to gain a deeper and more complex understanding of the research topic supports the adoption of a critical realist perspective. A mixed-method design was also employed by Metli (2018), with the aim to identify the development of IM through quantitative data collection in the form of a survey, along with an understanding of approaches to the implementation of IM through qualitative data collection in the form of semi-structured interviews, school observations and focus groups.

**Hypotheses**

Most research builds on hypotheses, even if these are not always directly articulated. Hypotheses relate to the connection between variables and can be equally applied to quantitative as well as qualitative research. However, although informed by prior research, hypotheses, remain conjectural until they can be substantiated and verified or contradicted through research outcomes (White, 2009). The critical realist approach considers a "*hypothesis as the predicted answer to a research question*" (Punch, 1998, as cited in Robson, 2002: 65). Robson (2002) even goes as far

as saying that in line with a critical realist approach the focus should be on solving the research problem and using theory to justify why specific outcomes or results were anticipated rather than stating a hypothesis. In this sense, two possible outcomes to the research problem may feasibly be expected:

## 1. Null-hypothesis

*Research question 1:*

Whilst IB claims to develop IM in students through its programmes, it is not constituted to what extent, in what way, and to what end. According to a recent study which did not reveal statistically significant findings as to the increase of IM (based on intercultural understanding and global engagement) in students throughout one year of their DP at an international and national IB school (Metli, 2018, 2021; Metli et al., 2019; Metli and Lane, 2020), it may be expected that no significant difference can be established from the outcomes of the study.

*Research question 2:*

Likewise, DP Arts-students and DP Non-Arts-students may not demonstrate any significant differences in the levels of sub-dimensions and characteristics associated with IM.

*Research question 3:*

As this research works with conceptualisations of IM based on IB documentation and research on IM (see chapter three), it may be feasibly expected that generally there is agreement with the definitions and understanding of concepts and LPAs, but that there is nuanced understanding and expression as to what these definitions precisely entail. However, the construct should largely hold true based on the strong links in literature and the general agreement in the IB community as to the conceptualisation of IM.

2. **Alternative hypothesis**

*Research question 1:*

Based on IB's aim to develop IM through its educational programmes, the outcomes of both quantitative and qualitative results should demonstrate an increase in the levels of concepts associated with IM as conceptualised in the literature in line with the findings of a recent study that demonstrated increasing levels of global mindedness in DP students between pre- and post-test and in comparison with their Non-DP peers (Gándara et al., 2021).

*Research question 2:*

Furthermore, based on the perceptions of the benefits and values of the Arts in developing certain soft skills associated with the development of IM, DP Arts-students may potentially demonstrate greater levels of development in domains and attributes associated with IM. This ought to be evident in the outcomes of both, the quantitative and the qualitative data analysis.

*Research question 3:*

Students may demonstrate a different understanding of the IBLPAs, for example through the influences of media, social media, family background, school context, etc. The different understanding leads to recommendations to either update and expand on the existing definitions, or to provide resources and to initiate changes to implementation in order to align students' understanding.

## Section 2: Methods

The research methods are at the heart of the research design and include data collection and analysis strategies (Saunders et al., 2019). This section outlines the specific methods and approaches to collecting and analysing data to answer the stated research questions (Crotty, 1998: 3). The section will explain the development of the survey instrument, in particular the scale for quantitative data collection, the processes of sampling and data collection, the specific approaches to data analysis, and considerations of the reliability and validity of this study.

## Survey Development

Based on the conceptualisation and the review of existing measurement tools (chapter three), a survey was developed based on recommendations by Deardorff (2004) for measuring complex constructs which include:

- *breaking down complex constructs and defining the resulting dimensions*
  Based on IB documentation and research literature, a conceptualisation of IM was adopted as the basis for this study. This conceptualisation broke the construct down into measurable elements (see chapter three).

- *measuring individual dimensions instead of measuring a complex construct holistically* and *developing an assessment method to match the specific dimensions*
  Scales were chosen that correlate with the specific dimensions or conceptual categories. Open-ended questions allowed participants to respond to LPAs which are associated with the respective dimensions.

- *using multiple assessment methods in combination*
  The research used a mixed-method approach. Based on existing survey tools, a questionnaire with ranking questions was developed to measure the underlying dimensions of IM. Open-ended questions on LPAs (associated with the identified dimensions) were used to allow participants the opportunity for reflection which allowed for richer data collection.

  (Recommendations in italics based on Deardorff, 2004)

The survey contained four parts, of which three are featured in this study. The first section of the survey contained ranking questions to measure the dimensions relating to IM. The ranking questions are based on existing survey instruments, which have been methodically developed and tested and met the following selection criteria:

- Availability: The survey tools were available through academic, peer-reviewed articles.
- Rigor: The survey tools were thoroughly and methodically developed and tested.
- Relevance: The sub-scales or sub-dimensions of the existing surveys contributed to measuring the identified concepts of IM.
- Costs: The chosen instruments were free of charge.

- Permission for use was granted: The researcher was able to gain the permission to use and adapt the existing survey tools.

- Clarity of language: The survey items used a clear and simple language that would be appropriate for the age group. Only surveys and items with clear and accessible language for students of this age group (16-19 years) were selected.

- Diversity: The survey items needed to be applicable in diverse setting and appropriate to the diverse backgrounds of participants.

The chosen surveys included the Global Perspective Inventory (GPI) (Merrill et al., 2012), the Global Citizenship Scale (GCS) (Morais & Ogden, 2011), the Cultural Intelligence Scale (CQS) (Ang et al., 2007; Van Dyne et al., 2015), and the Scale of Ethnocultural Empathy (SEE) (Braskamp et al., 2013). The quantitative survey section contained 73 multiple-choice items in random order. The response to the question was ranked based on a 6-point Likert-type scale with the response options including 'strongly disagree', 'disagree', 'somewhat disagree', 'somewhat agree', 'agree', and 'strongly agree'. The questions included positively and negatively phrased items to avoid random responses and to ensure that participants are carefully reading the items. The response to questions in this section was mandatory, meaning that students had to answer all the questions in each battery in order to move forward to the next item battery.

The second section of the survey contained open-ended questions for qualitative data collection. This qualitative section allowed candidates to reflect on situations in which they demonstrated some of the competencies and attributes relating to IM. Responding to the open-ended questions in this section was optional and students could choose to share as many or as few reflections as they liked. The questions asked students to explain their experiences in different cross-cultural situations for which students were given the following clarification:

> *"A cross-cultural situation includes, but is not limited to, situations in which you interacted with people from different or unfamiliar cultures, visited other countries or unfamiliar places, or learned about and applied knowledge to different or unfamiliar cultures or places."*

The questions then asked participants to reflect on and share examples of:

- a time or situation when they acted knowledgeable in a cross-cultural situation

- a time or situation when they acted open-minded

- forms of communication or expression they use when they can't express themselves through language

- a time or situation when they used specific ways of critical thinking in or about a cross-cultural situation

- a time or situation when they thought they were particularly caring or principled in a cross-cultural situation

- a time or situation in which they took action on a global or cross-cultural issue.

(See appendix two for an overview of all qualitative questions.)

Prompts for reflection were given for participants to consider when responding to each of the questions, including:

- What was particularly challenging or particularly easy for you in this situation?

- How did you solve or resolve any issues arising from the situation?

- What did you learn from this situation? How did the situation shape or impact you?

- Is there anything else you feel is important to share about this situation?

The third section contained questions about demographic or background information. The section included questions about:

- the status of the students (*DP candidates*[39] versus *Certificate candidates*[40])

- subject choices

- engagement with the Arts outside of the DP and outside school

- school type

- prior or other IB experience, e.g. attendance of the PYP or MYP

- country of school

- gender

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[39] Students who study the full Diploma Programme.
[40] Students who study a selection of courses from those offered in the Diploma Programme.

- nationality

- ethnic background

- country of birth

- parents' information, including nationality, ethnicity, occupation and education level

Questions in this section about subject choices were obligatory, so that students could be placed into groups of DP candidates versus Certificate candidates, and DP Arts-students versus DP Non-Arts-students. These are the groups which the data analysis is based upon and questions pertaining to these were essential. Apart from these, the questions in this section were optional for students to complete. The order of the four sections was deliberate, placing the most important aspects of data collection early on, to avoid survey fatigue and to ensure as many questions as possible were answered. Table 2 provides an overview of the sections of the survey along with the type of measurement, scaling and data collected.

*Table 5: Data collection: measurement and scaling*

| Section | Measurement | Type of information | Purpose |
|---------|-------------|---------------------|---------|
| **Level of IM** | Ranking questions with a Likert-type scale | Quantitative data: Ordinal data | Comparison of means |
| **Student perspectives** | Open-ended questions | Qualitative data: Categorical data<br><br>Quantitative data: Frequency | Identification of themes, similarities and differences; Compare and contrast, using thematic and descriptive data analysis |
| **Student background section** | Demographic questions | Descriptive data Nominal data Ordinal data | Descriptive information to explain quantitative and qualitative data |
| **Call for action** *(not included)* | Student work | Qualitative data | Exploratory research |

### *International Mindedness Scale (IMS)*

This section will explain the development of the scale that was used for quantitative data analysis. The total length of the IMS was aimed to remain at 20-30 minutes as a manageable length for high-school aged students. All items selected from existing surveys were used in their original form. The questions were chosen based on clarity in language appropriate to participants from diverse linguistic and cultural backgrounds, as well as suitability to the intended age group. In order to

ensure that the survey is appropriate for IB students from schools across the globe, some items needed to be excluded from the pre-existing scales. The reasons that would lead to the exclusion of items or questions included:

- Ambiguity: items that were ambiguous or with a potentially double meaning, and/or could be misinterpreted across cultures or cultural contexts

- Unclear: items with unclear content or which are up to interpretation

- Presumption: items that could be understood as pre-empting status or making presumption about the participants' racial or social status

- English language: questions that presumed that English would be the native or mother tongue of participants as survey participants were responding globally with a variety of cultural and linguistic backgrounds

- Gender bias: questions that would be answered differently depending on gender

- Duplication or replication: items that are alike or similar to other items in the survey

- Value judgement: items that made value judgements, e.g. on behaviours, which could be judged differently across cultures or contexts

- Inconsistency: items that are aimed at measuring one thing, but may measure something else

- Complexity: items that asked more than one thing, e.g. several skills, and could therefore lead to inconsistency in responses in pre- and post-test as well as across participants

- Complex terms: items that contained terms or concepts that were not clearly defined and dependent on cultural interpretations and diversity of contexts

- Double-barrelled questions

- Cultural bias: items that were geared specifically at a North American or Western context or had other content that was prone to cultural bias

- Political: questions that made reference to specific political opinions, events or circumstances

Based on the conceptualisation of IM described in chapter three, the survey included questions that related to the four identified dimensions, *knowledge and understanding*, *skills and competences*, *dispositions and attitudes*, and *behaviours and action* (i.e. willingness to act). Questions for the dimension *knowledge and understanding* focussed on participants' perception

of their knowledge and understanding of intercultural or global issues,[41] their appreciation of diversity and intercultural issues, and the realisation of interconnectedness. The correlating LPA is *knowledgeable.*[42] Survey questions for this domain were taken from the surveys indicated below and included the following statements:

- cognitive knowledge (original scale: GPI)

  *(Questions used with permission from the authors: Braskamp et al., 2014: 8-10)*

  - I understand the reasons and causes of conflict among nations of different cultures.
  - I am informed of current issues that impact international relations. (also found in: GCS)
  - I know how to analyze the basic characteristics of a culture.
  - I can discuss cultural differences from an informed perspective.

- cognitive CQ (original scale: CQ)

  *(Questions used with permission from the authors: Van Dyne et al., 2015: 20)*

  - I know the legal and economic systems of other cultures.
  - I know the rules (e.g. vocabulary, grammar) of other languages.
  - I know the cultural values and religious beliefs of other cultures.
  - I know the marriage systems of other cultures.
  - I know the Arts and crafts of other cultures.
  - I know the rules for expressing nonverbal behaviour in another culture.

- global knowledge (GCS)

  *(Questions used with permission from the authors: Morais and Ogden, 2010: 9-10)*

  - I feel comfortable expressing my views regarding a pressing global problem in front of a group of people.
  - I know several ways in which I can make a difference on some of this world's most worrisome problems.

The dimension *skills and competences* feasibly contains two sub-scales with questions pertaining to participants' perception of their critical thinking and communication skills within intercultural

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[41] Expressed, for example, in statement such as *"To be open to the world, we need to understand it."* and *"IB learners gain the understanding necessary to make progress toward a more peaceful and sustainable world"* (IB, 2019a: 2).
[42] For definitions of LPAs, see appendix 1.

settings. The subscale for critical thinking connects to the LPAs *thinker*, *inquirer*, and *reflective*. To capture the construct of *critical thinking* as described by IB documentation, sub-scales from three surveys with the following questions were included:

- cognitive knowing (original scale: GPI)

  *(Questions used with permission from the authors: Braskamp et al., 2014: 8-10)*

    o I rarely question what I have been taught about the world around me.

    o I rely primarily on authorities to determine what is true in the world.

    o When I notice cultural differences, my culture tends to have the better approach.

    o Some people have a culture and others do not.

    o In different settings what is right and wrong is simple to determine.

- metacognitive CQ (original scale: CQ)

  *(Questions used with permission from the authors: Van Dyne et al., 2015: 20)*

    o I adjust my cultural knowledge as I interact with people from a culture that is unfamiliar to me.

    o I check the accuracy of my cultural knowledge as I interact with people from different cultures.

    o I am conscious of the cultural knowledge I use when interacting with people with different cultural backgrounds.

    o I am conscious of the cultural knowledge I apply to cross-cultural interactions.

The subscale for communication aimed to measure the participants' perception of their skills and competences for *multilingual* and *multimodal* communication and effective *collaboration*. This sub-scale connects to the LPA *communicator*. Questions for this sub-scale were taken from the existing survey sub-scales indicated below and included the following statements:

- behavioural CQ (original scale: CQ)

  *(Questions used with permission from the authors: Van Dyne et al., 2015: 20)*

    o I change my verbal behaviour (e.g. accent, tone) when a cross-cultural interaction requires it.

    o I use pause and silence differently to suit different cross-cultural situations.

    o I change my nonverbal behaviour when a cross-cultural situation requires it.

- intercultural communication (original scale: GCS)

*(Questions used with permission from the authors: Morais and Ogden, 2010: 9-10)*

- I often adapt my communication style to other people's cultural background.
- I am able to communicate in different ways with people from different cultures.
- I am fluent in more than one language.
- I welcome working with people who have different cultural values from me.
- I am able to mediate interactions between people of different cultures by helping them understand each other's values and practices.

The dimension *attitudes and dispositions* feasibly contains three sub-scales which connect to the LPAs *principled*, *caring*, and *open-minded*. Attitudes and dispositions include mindsets, perspectives, tendencies as well as feelings of empathy and affect that characterise who we are as people and which shape our identity. To capture the domain of *attitudes and dispositions*, three sub-scales were used which included the following statements:

**Principled**

- intrapersonal identity (original scale: GPI)

  *(Questions used with permission from the authors: Braskamp et al., 2014: 8-10)*

  - I am willing to defend my own views when they differ from others.
  - I put my beliefs into action by standing up for my principles.
  - I can explain my personal values to people who are different from me.
  - I know who I am as a person.
  - I have a definite purpose in my life.

- self-awareness (original scale: GCS)

  *(Questions used with permission from the authors: Morais and Ogden, 2010: 9-10)*

  - I know how to develop a place to help mitigate a global environmental or social problem.
  - I know several ways in which I can make a difference on some of this world's most worrisome problems.
  - I am able to get other people to care about global problems that concern me.
  - I am confident that I can thrive in any culture or country.

**Caring**

- empathic feeling (from subscale: empathic feeling and expression; original scale: (SEE)

    *(Questions used with permission from the authors: Wang et al., 2003: 225)*

    - I rarely think about the impact of a racist or ethnic joke on the feelings of people who are targeted. (R)
    - I am touched by movies or books about discrimination issues faced by racial or ethnic groups other than my own.
    - I share the anger of those who face injustice because of their racial and ethnic backgrounds.
    - When other people struggle with racial or ethnic oppression, I share their frustration.
    - I don't care if people make racist statements against other racial or ethnic groups. (R)

- empathic perspective-taking (SEE)

    *(Questions used with permission from the authors: Wang et al., 2003: 225)*

    - I feel uncomfortable when I am around a significant number of people who are racially/ethnically different than me. (R)
    - I can relate to the frustration that some people feel about having fewer opportunities due to their racial or ethnic backgrounds.
    - I know what it feels like to be the only person of a certain race or ethnicity in a group of people.
    - It is difficult for me to put myself in the shoes of someone who is racially and/or ethnically different from me. (R)
    - It is difficult for me to relate to stories in which people talk about racial or ethnic discrimination they experience in their day to day lives. (R)
    - I don't know a lot of information about important social and political events of racial and ethnic groups other than my own. (R)
    - It is easy for me to understand what it would feel like to be a person of another racial or ethnic background other than my own.

**Open-mindedness**

- acceptance of cultural difference (original scale: SEE)

  *(Questions used with permission from the authors: Wang et al., 2003: 225)*

  - I don't understand why people of different racial or ethnic backgrounds enjoy wearing traditional clothing.
  - I do not understand why people want to keep their indigenous racial or ethnic cultural traditions instead of trying to fit into the mainstream.
  - I feel irritated when people of different racial or ethnic backgrounds speak their language around me.

- intrapersonal affect (original scale: GPI)

  *(Questions used with permission from the authors: Braskamp et al., 2014: 8-10)*

  - I do not feel threatened emotionally when presented with multiple perspectives.
  - I am sensitive to those who are discriminated against.
  - I enjoy when my friends from other cultures teach me about our cultural differences.
  - I am accepting of people with different religious and spiritual traditions.
  - I am open to people who strive to live lives very different from my own life-style.

- interpersonal social interaction (original scale: GPI)

  *(Questions used with permission from the authors: Braskamp et al., 2014: 8-10)*

  - Most of my friends are from my own ethnic background. (R)
  - I intentionally involve people from many cultural backgrounds in my life.

Questions for the dimension *behaviours and actions* focussed on students' behaviours, practices and conduct demonstrated through questions relating to specific themes. The themes included a motivation and drive to take action in the context of global issues, a willingness to engage with diverse others, a type of behaviours and way of acting, a desire to initiate or bring change, and meaningful engagement in service activities, for example in the community. The LPA that closely relates to the category of behaviours and actions is *risk-taker*. Survey questions for this domain were taken from the surveys indicated below and included:

- interpersonal social responsibility (original scale: GPI)

  *(Questions used with permission from the authors: Braskamp et al., 2014: 8-10)*

- o I consciously behave in terms of making a difference.

- o I put the needs of others above my own personal wants.

- o Volunteering is not an important priority in my life.

- o I think of my life in terms of giving back to society.

- o I work for the rights of others.

- empathic expression (from subscale: empathic feeling and expression; original scale: SEE)

  *(Questions used with permission from the authors: Wang et al., 2003: 225)*

  - o I seek opportunities to speak with individuals of other racial or ethnic backgrounds about their experiences.

  - o When I know my friends are treated unfairly because of their racial or ethnic backgrounds, I speak up for them.

  - o I am not likely to participate in events that promote equal rights for people of all racial and ethnic backgrounds. (R)

  - o When I hear people make racist jokes, I tell them I am offended even though they are not referring to my racial or ethnic group.

- motivational CQ (original scale: CQ)

  *(Questions used with permission from the authors: Van Dyne et al., 2015: 20)*

  - o I enjoy interacting with people from different cultures.

  - o I am confident that I can socialise with locals in a culture that is unfamiliar to me.

  - o I am sure I can deal with the stresses of adjusting to a culture that is new to me.

  - o I enjoy living in cultures that are unfamiliar to me.

## Sampling and Data Collection

Schools were invited to participate if they were authorised IB world schools. The invited schools were located across all IB regions, including IBA, IBAEM, and IBAP and were from diverse backgrounds, including international, national, private, semi-private and state-funded (i.e. state or public) schools.[43] To be invited, the schools had to be offering the DP at the time of the research launch, meaning the school had to have a cohort which would take DP exams in May 2019 or

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[43] Information about authorised IB schools can be found on the public IB website: https://www.ibo.org/programmes/find-an-ib-school/

November 2019.[44]  Based on information provided by the IB, the sample was drawn exclusively from IB schools that were offering DP Arts courses, meaning that they offered one or more DP Arts courses between the years 2011 and 2017 in order to be considered. Initially, schools who had DP Music students enrolled in 2017 were invited, but when the response rate of these schools was too low, schools with regular student enrolment of DP Music students between 2011-2017 were also included. The majority of these schools used English as the primary language of instruction. Other primary languages of instruction included Chinese, French, and Spanish. Schools invited to participate in this study used English, Chinese or Spanish as their primary language of instruction. Schools with French as primary language of instruction were not included in the sample as the low number of potential schools that could participate in French did not warrant the use of resources for translation of all the necessary materials, such as email communication, invitation letters and the survey. All schools were contacted in English except the Spanish speaking schools which received a bilingual invitation.

In summary, schools with consistent cohorts of DP Music students between the years 2011-2017 (except for schools with French as primary language of instruction) had the opportunity to participate and participation was voluntary (BERA, 2018; Bryman 2004; BSA, 2017; Robson, 2002). This means that only students at those schools who expressed an interest in participating in the study had the actual opportunity to participate. Where schools did not express an interest, students could not be reached. As such the sample was not a random sample, but it was as close as possible to random sampling, namely no bias was applied in either the selection of schools (other than that they were offering a DP Arts course) nor of participating students. Of schools that expressed interest in the study, all students had an equal opportunity to part-take (Harris, 1998), except for factors that were beyond the researchers' control (e.g. a school's interest in the research

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[44] IB schools offer exam sessions at two different time points in the year. Schools that start their academic year around August-September will offer the IBDP exams for candidates in May of the second year. For example, DP candidates who started the Diploma in August/September 2017 would have taken their final exams in May 2019. Schools that started their academic year early in the year, for example January/February, took their exams in November of the following year. That means, DP candidates who started the Diploma in January/February 2018 took their final exams in November 2019. Schools who offer exams in May are called May-sessions schools and schools who offer exams in November are called November-session schools.

topic, timing of the study in relation to other school commitments which may have impacted the decision of whether or not to participate, IBDP coordinators' or teachers' workload, etc.).

At the beginning of the school year an initial email was sent to schools, namely the DP coordinators. The email asked for participation with a very brief description of the study. To schools that did not respond or had an out of office reply, a follow up email was sent with the initial invitation. If schools did not respond after three invites, they were removed from the list. Of those schools who were interested, DP coordinators either responded directly or passed it on to the relevant teachers at their schools. Schools (i.e. DP coordinators or teachers) that responded and expressed their interest, received further details via an email in which the study was described in more detail. As a next step, schools were provided with an opt-in/opt-out form to parents with a return date (for more information, please see the section on *ethical considerations* later on in this chapter). After the return date had passed, schools were provided with a link and password to an online survey for students to complete. Upon opening the survey, participants viewed an introductory page to explain the study, the survey, and ethical aspects, such as the right to withdraw and anonymity. Following the introductory page, participants were asked to consent to participate. Only upon active consent were students able to move on with the survey. In the next page they were prompted to set up their anonymous person code which they were to use in both pre- and post-test to allow for pairing the outcomes of the pre- and post-tests.

As schools are located in different regions the school year starts at different times (see footnote 50). Therefore, the data collection happened at different time points. For May-session schools, an invite was made in October 2017 and pre-test data collection took place mainly in November 2017 with a few responses in early December 2017. A second cohort of May-session schools was included who took the pre-test in May 2018 at the end of their first year of their Diploma Programme, which is roughly a mid-point in the course. This cohort was not included in the pre-test analyses. Post-test data for both cohorts was collected between April and July 2019. For November-session schools, an invitation was made around March/April 2018 and the pre-test data collection took place in May 2018. Two additional cohorts joined between August and October 2018. Post-test data were collected between September and December 2019 (with one exception in February 2020). A longer window was offered for post-test data collection to engage students

outside the assessment session (see table 6). More detailed information for each of the cohorts is presented below the table.

Table 6: Overview of cohorts and data collection points

| Cohort | Exam session | Time elapsed between pre- and post-tests | Pre-test completion range | Post-test completion range |
|--------|-------------|------------------------------------------|---------------------------|----------------------------|
| 1 | May | ~ 18 months | November (December) 2017 | April - July 2019 |
| 2 | May | ~ 12 months | May 2018 | April - July 2019 |
| 3 | November | ~ 18 months | May 2018 | September - December 2019 |
| 4 | November | ~ 16 months | August 2019 | October - November 2020 |
| 5 | November | ~ 13 - 15 months | August & October 2019 | December 2020 |

Cohort one: Of 936 May-session schools invited in October 2017, 42 schools moved forward with the survey, but not all of these may have been actively participating until the end of the study. From these schools, 111 students responded to the survey in the pre-test and 57 students responded in the post-test. Cohort two: In May 2018, 19 additional May-session schools joined the study. From these schools, 27 students responded to the pre-test and 20 students responded to the post-test. Cohort three: Of 188 November-session schools invited in March 2019, 11 schools moved forward with the survey. From these schools, 55 students responded to the pre-test and 28 students responded to the post-test. Cohorts four and five: In July 2019 two additional November-session schools joined the study. For cohort four, 26 students responded to the pre-test, and 12 responded in the post-test. For cohort five, two students responded to the pre-test, and two students responded to the post-test.

*Full Sample*

Table 7 shows that between 2011 and 2017 of 2196 DP schools with DP Arts-students, 1149 schools also had DP Music-students. Of these schools, 74 schools (6,4% of 1149 schools with DP Music-students) decided to join the study. The overview shows that generally, the number of

schools is higher in the May-session as opposed to the November-session which was reflected in the higher participation of May-session schools (N=61) versus November-session schools (N=13).

*Table 7: Number of schools with DP Arts- and DP Music-students*

|  | 2011-2017 | | 2017 | | Schools participating in this study | |
|---|---|---|---|---|---|---|
| No. of schools with DP Arts subjects | 2196 | | 2044 | | 74 | |
| with DP Music-students | 1149 | | 783 | | | |
| without DP Music-students | 1047 | | 1261 | | | |
|  | May | November | May | November | May | November |
| No. of schools with DP Arts subjects | 1991 | 205 | 1855 | 189 | 61 | 13 |
| with DP Music-students | 1061 | 88 | 724 | 59 | | |
| without DP Music-students | 930 | 117 | 1131 | 130 | | |

Between 2011 and 2017, 1033 schools with DP Arts-students were state/public schools of which 592 schools also had DP Music-students. During the same timeframe 1178 schools were private schools (also including semi-private schools from here onwards) of which 563 schools also had DP Music-students. (Please note that these numbers are not a reflection of schools' attitudes towards the Arts, but rather a reflection of the differing numbers and demographics of IB DP programmes in each region.)

*Table 8: Number of schools with DP Arts-students by school type (state/public versus private) from 2011-2017*

|  | State/Public schools | | | Private schools | | |
|---|---|---|---|---|---|---|
| Number of schools with DP Arts-students | 1033 | | | 1178 | | |
| Number of schoosl with DP Music-students | 592 | | | 563 | | |
|  | IBA | IBAEM | IBAP | IBA | IBAEM | IBAP |
| Number of schools with DP Arts-students | 851 | 138 | 44 | 354 | 444 | 380 |

In this study, a total of 340 students participated, with 221 students in the pre-test and 119 students in the post-test, meaning the number of responses in the post-test was lower in comparison to the number of the responses in the pre-test (table 9).

*Table 9: Number of responses in pre- and post-test*

| Cohort | Pre-test | Post-test |
|---|---|---|
| 1 | 111 | 57 |
| 2 | 27 | 20 |
| 3 | 55 | 28 |
| 4 | 26 | 12 |
| 5 | 2 | 2 |
| **Total** | **221** | **119** |

Of these 340 students, 69 of the participating students were enrolled in state/public schools with 41 in the pre-test and 28 in the post-test, while 238 students were from private schools with 154 students in the pre-test and 84 students in the post-test, showing a greater participation of students from private schools in this research (table 10) which is not quite aligned with the more even general distribution of state/public schools and private schools shown in table 8.

*Table 10: School type and ethnic background of participating students*

| | School type | | | Students' ethnic background | | |
|---|---|---|---|---|---|---|
| | State/Public | Private | Unknown | Mono-cultural | Diverse | Unknown |
| **Total** | 69 | 238 | 33 | 211 | 106 | 23 |
| **Pre-test** | 41 | 154 | 26 | 137 | 65 | 19 |
| **Post-test** | 28 | 84 | 7 | 74 | 41 | 4 |

Between 2011-2017 the largest number of schools with students taking DP Arts courses was in the IBA region with 1090 schools in the May-session and 104 in the November-session. In the IBAEM region 567 schools had DP Arts-students in the May exam session and ten had DP Arts-students in the November-session. In the IBAP region 333 schools had students in the May-session and 91 had students in the November-session (table 11).

| | IBA | IBAEM | IBAP |
|---|---|---|---|
| **Number of schools with DP Arts-students** | 1194 | 577 | 424 |
| **Number of schools with DP Music-students** | 655 | 251 | 243 |

In this study, all IB regions were well represented with a total of 145 students from IBA (101 students in the pre-test and 44 students in the post-test), a total of 106 students from IBAEM (65 students in the pre-test and 41 students in the post-test), and a total of 88 students from IBAP (54 students in the pre-test and 34 students in the post-test) (table 12).

*Table 12: Region*

| | IBA | IBAEM | IBAP | Unknown |
|---|---|---|---|---|
| **Total** | 145 | 106 | 88 | 1 |
| **Pre-test** | 101 | 65 | 54 | 1 |
| **Post-test** | 44 | 41 | 34 | 0 |

Between 2011 and 2017, schools with DP Arts-students were located in 137 countries. Schools with DP Arts-students represented 28 countries in IBA, 83 countries in IBAEM and 26 countries in IBAP. In this study, across pre- and post-test, participating students represented 48 nationalities (35% of all countries and 54% of countries with schools with DP Music-students) demonstrating a diverse representation of student backgrounds considering that this diversity is drawn from only 6,4% of all school.

*Table 13: Number of countries represented by schools with DP Arts-students*

| | Total | IBA | IBAEM | IBAP |
|---|---|---|---|---|
| **Number of countries of schools with DP Arts-students** | 137 | 28 | 83 | 26 |
| **Number of countries of schools with DP Music-students** | 89 | 20 | 48 | 21 |
| **Nationalities represented in this study** | 48 | 5 | 15 | 7 |

Of the 340 participating students, 274 took the full DP, with 172 DP candidates in the pre-test and 102 DP candidates in the post-test. Of these 340 students, 99 students had prior IB experience (66

students in the pre-test and 34 students in the post-test), for example through participation in the PYP or MYP (table 14).

Table 14: Diploma Programme status among participating students and prior IB experience

|  | Diploma Programme status | | | | Prior IB experience | | |
|  | All | DP candidates | Certificate candidates | Unknown | Yes (PYP or MYP) | No | Unknown |
|---|---|---|---|---|---|---|---|
| Total | 340 | 274 | 42 | 23 | 99 | 199 | 42 |
| Pre-test | 221 | 172 | 27 | 21 | 65 | 125 | 31 |
| Post-test | 119 | 102 | 15 | 2 | 34 | 74 | 11 |

In total, 199 female and 129 male students participated, with 127 female students in the pre-test and 72 female students in the post-test, and 87 male students in the pre-test and 42 male students in the post-test. 174 of the participating students had opted for a DP Arts course (118 students in the pre-test; 54 students in the post-test) while 166 of the participating students had not opted for a DP Arts course (101 students in the pre-test; 65 students in the post-test) providing an acceptable balance between the two groups (table 15).

Table 15: Gender and DP Arts choice

|  | Gender | | | DP Arts choice | |
|  | Female | Male | Other or unknown | DP Arts | DP Non-Arts |
|---|---|---|---|---|---|
| Total | 199 | 129 | 8 | 174 | 166 |
| Pre-test | 127 | 87 | 4 | 118 | 101 |
| Post-test | 72 | 42 | 4 | 54 | 65 |

*Paired Sample*

The quantitative pre-test and post-test analyses were conducted only with participants who had taken part at both time points (paired sample). For these analyses, 65 participants were identified with the following backgrounds: 39 students were female and 26 students were male. 56 of the students studied the full DP (DP candidates) while nine students took DP courses (Certificate

candidates). Six students were from state/public schools while 59 students were from private schools. 18 students took prior IB and 42 did not have access to prior IB education (table 16). Schools were located in all regions and students represented 20 nationalities and 36 students were from monoethnic or monocultural backgrounds (from here onwards: monocultural background) while 28 came from multiple ethnicities or diverse cultural backgrounds (from here onwards: diverse cultural background). 21 students studied in schools in the IBA region and schools were located in three countries. 23 students studied in schools in the IBAEM region and schools were located in five countries. 21 students studied in schools in the IBAP region and schools were located in three countries (table 17). 28 students opted for a DP Arts course while 37 students did not opt for a DP Arts course. Of the students who opted for a DP Arts course, 12 opted for DP Visual Arts, eight opted for DP Music, and two opted for each, DP Dance, DP Theatre, DP Film and DP Literature and Performance. In total, 14 students were enrolled in a performing Arts course (DP Music, DP Dance, DP Theatre, DP Literature and Performance), while 14 were enrolled in a Visual Arts course (i.e. DP Visual Arts and DP Film) (table 18).

*Table 16: Gender, DP status, type of school and prior IB experience of students in paired sample*

|  | Gender | | DP status | | Type of school | | Prior IB | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Female** | **Male** | **Full DP** | **Certificate** | **State/Public** | **Private** | **Yes** | **No** | **Unknown** |
| **Number** | 39 | 26 | 56 | 9 | 6 | 59 | 18 | 42 | 5 |

*Table 17: Cultural background and regional representation of students in paired sample and countries in which school are located*

|  | Cultural background | | Students per region | | | Countries of schools per region | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Mono-cultural** | **Diverse** | **IBA** | **IBAEM** | **IBAP** | **IBA** | **IBAEM** | **IBAP** |
| **Number** | 36 | 28 | 21 | 23 | 21 | 3 | 5 | 3 |

*Table 18: DP Arts option, DP Arts course choice and Type of DP Arts course of students in paired sample*

| | DP Arts status | | DP Arts-course | | | | | | Type of DP Arts-course | |
|---|---|---|---|---|---|---|---|---|---|---|
| | DP Arts yes | DP Arts no | Music | Dance | Theatre | Lit &Perf | Visual Arts | Film | Perf Arts | Visual Arts |
| **Number** | 28 | 37 | 8 | 2 | 2 | 2 | 12 | 2 | 14 | 14 |

## Data Analysis

The following section outlines the approach taken to data analysis. The section is split into quantitative and qualitative data analysis. The quantitative data analysis were conducted on the responses to the Likert-type survey section using principal component analysis (PCA), Mixed between-within subjects analysis of variance (SPANOVA) and one-way between-groups analysis of covariance (ANCOVA). Qualitative analysis in the form of thematic analysis was conducted on the responses to open-ended questions. Due to the low numbers in each DP Arts-course and in DP Music specifically, the data analyses could not be carried out with a focus on DP Music-students as initially intended. Instead, students who studied a DP Arts course were grouped together at this point and for all ongoing analyses.

### *Quantitative Data Analysis*

### Scale Testing

For the quantitative analysis SPSS version 26 was used. PCA was conducted on the 73 Likert-type survey questions (variables) (six response options) using (192) pre-test responses (cases) from cohorts 1A, 3A and 4A to identify which variables would group together. These cohorts had completed the survey at a similar time point at the beginning of their DP studies (i.e. around four to five months). Post-test responses were not used for PCA as the inclusion of post-test responses could have influenced the outcome due to changes that occur over time or as a result of the intervention (Tabachnick & Fidell, 2013). On theoretical grounds Direct Oblimin was chosen as a rotation method because based on the research design the presumption can be made that components would be correlated (Pallant, 2013; Field, 2018). Coefficients with an absolute value below .40 were suppressed due to a sample size above 150 and below 300 (Field, 2018) although factors with fewer than ten loadings were accepted from this solution. The recommendation of proceeding with "*four or more loadings greater than 0.6*" "*regardless of sample size*" (Field, 2018:

797) for reliable factors was closely (but not fully) achieved with four scales with four or more loadings above 0.6, and three scales with four or more loadings above .5 of which at least three loadings were above .6.

An initial result based on Kaiser's criterion or eigenvalues suggested 20 components achieving 68,2% of cumulative variance which would lead to too many factors being retained (Pallant, 2013). The Kaiser-Meyer-Olkin Measure (KMO) [range: 0 to 1] was .78, which is above the recommended minimum value of 0.6 (Pallant, 2013; Tabachnick and Fidell, 2013). The Significance Value of Bartlett's Test of Sphericity was .000 ($p<0.05$) and thus reached statistical significance (Bartlett, 1954, as cited in Pallant 2013)[45] indicating suitability of PCA for the collected variables/data.

*Table 19: Results of KMO and Bartlett's Test for initial solution*

KMO and Bartlett's Test

| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | .783 |
|---|---|---|
| Bartlett's Test of Sphericity | Approx. Chi-Square | 6808.993 |
| | df | 2628 |
| | Sig. | .000 |

Parallel analysis was conducted using the programme Monte Carlo PCA for Parallel Analysis (Pallant, 2013; Field, 2018) which suggested only seven components would be greater than the "*corresponding criterion values for a randomly generated data matrix of the same size*" (73 variables x 192 participants) (Pallant, 2013: 207). A test on seven components did not offer conceptually satisfying results. The procedure was therefore repeated with eight components. For this procedure KMO and Bartlett's Test of Sphericity remained the same (see table 19 above). The cumulative variance at this point was low with 45.9% for eight components, but the components showed promising conceptual clarity. In a step-by-step approach any variables that did not load in the structure matrix, followed by variables that did not load in the pattern matrix were then removed. In total 22 variables were pruned, leaving eight scales with a total of 51 variables. At this point the KMO changed to .81 and Bartlett's Test of Sphericity yielding Sig. .000. The total variance explained by these eight scales was 53.37% (see appendix 3).

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[45] "*Bartlett's test of sphericity should be significant (p < .05) for the factor analysis to be considered appropriate.*" (Pallant, 2013: 190)

*Table 20: Results of KMO and Bartlett's Test for final solution*

| KMO and Bartlett's Test | | |
| --- | --- | --- |
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | .808 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 4306.153 |
| | df | 1275 |
| | Sig. | .000 |

However, one of eight components only had two factor loadings (see appendix 4) and was further excluded from the analyses, in line with Field (2018) and Pallant (2013) who recommend three or more loadings per component.

## Validity

The IMS is based on existing survey tools which have been developed with an extensive research focus on the development of items in relation to the constructs to be measured (Ang et al., 2006, 2007; Braskamp et al., 2013; Morais & Ogden, 2011; Wang et al., 2003). In order to ensure content validity of the IMS, the surveys were chosen due to the relevance of their dimensions and constructs in relation to the dimensions and constructs that emerged from the literature related to IM in the IB as described in the conceptualisation of IM in chapter three. As the existing surveys, the IMS operated with self-reports which have been found to be trustworthy as long as items are understood, and students are not intimidated by the content of a question or statement. However, in general, the "*honesty with which a person self reports determines the trustworthiness*" (Braskamp et al. 2013: 10) of this scale (IMS). As the survey is fully anonymous and no benefits arise from completing the survey, there is a low possibility of social desirability (see section on ethical considerations later on in this chapter).

Face validity, concurrent validity and construct validity were established through several studies for the GPI (Braskamp et al., 2013). The development of the GCS followed a process of eight stages, including "*two expert face-validity trials, extensive exploratory and confirmatory factor analysis [...] and a series of nominal group technique interviews*" (Morais & Ogden, 2011: 6) to establish face-validity. The construct validity of the GPI was established through a qualitative approach (group interviews) and confirmatory factor analysis (CFA) (Morais & Ogden, 2011). For

the CQS, incremental validity between the four dimensions of CQ as assessed by the CQS as well as convergent validity of the four dimensions with other (external) character traits demonstrated that the four dimensions were distinct. Discriminant validity was established through AVE (average variance extracted) and CFA (Ang et al., 2007). For the SEE convergent validity was established through CFA. Correlation analyses were conducted to establish discriminant and concurrent (convergent) validity of the scale's four factors or dimensions (Wang et al., 2003).

Further to the validity of the established instruments, this study used PCA (described above) to establish discriminant validity for the IMS. The component correlation matrix suggests mostly weak correlations between components, meaning that responses on one scale do not predict responses on another scale. Correlations between components one and five, one and seven, one and eight, three and eight, and five and eight may be considered moderate. These low correlations between components on the correlation matrix confirmed that the scales (dimensions) used for data analysis were distinct.

*Table 21: Component Correlation Matrix for final solution*

Component Correlation Matrix

| Component | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.000 | -.049 | .195 | .154 | .254 | .132 | .232 | .245 |
| 2 | -.049 | 1.000 | .046 | .091 | .089 | .058 | .082 | .114 |
| 3 | .195 | .046 | 1.000 | .053 | .188 | .139 | .083 | .201 |
| 4 | .154 | .091 | .053 | 1.000 | .085 | .013 | .104 | .083 |
| 5 | .254 | .089 | .188 | .085 | 1.000 | .080 | .171 | .223 |
| 6 | .132 | .058 | .139 | .013 | .080 | 1.000 | .005 | -.012 |
| 7 | .232 | .082 | .083 | .104 | .171 | .005 | 1.000 | .195 |
| 8 | .245 | .114 | .201 | .083 | .223 | -.012 | .195 | 1.000 |

Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.

Critical realists believe "*that all methods are fallible*" but also, that validity is inherent in evidence rather than methods (Maxwell, 1996, as cited in Robson, 2002: 106). Therefore, a critical realist approach to establishing validity entails removing as much as possible any threats to *internal* and

*external* validity (Robson, 2002). In this sense, there are 12 potential *internal validity* threats[46] which must be ruled out. To establish generalisability, or *external validity*, four threats[47] have to be eliminated. Often, the approaches to increasing *internal validity* impact *external validity* (Robson, 2002). This study has aimed to minimize relevant threats to internal and external validity, which include *history, setting, selection, instrumentation* and *testing,* or *compensation* (Robson, 2002).

The diversity of the sample in this study allowed for the minimisation of any threats related to specific school settings or events that may have happened in schools at the time of data collection (i.e. threats of *history* and *setting*) (Robson, 2002). Furthermore, the choice of delayed first data collection point due to first engagement in the DP and spread-out second data collection point due to exam timing as explained earlier was intended to remove event-based influences on data collection. The instrumentation was kept identical in the pre-test and post-test, meaning differences cannot be due to a change in instrument. The anonymity of the test and the fact that no benefits or compensation arose from the way the test was completed reduced the threat of data collection at either time-point being improved simply by retaking the survey or by favourable answers based on rewards. The selection process as outlined above lead to a diverse sample with diverse backgrounds. However, it must be noted that especially in the paired test there was an overrepresentation of students from private and semi-private schools. Also, the sample was drawn from schools who offered the DP Arts, including DP Music. This means that findings may only be generalisable to private or semi-private IB schools who offer DP Arts of which one of the courses on offer is DP Music. Over two years a natural maturation of all candidates took place which may have impacted the results of the post-test aside from any impact of the DP or the choice of DP Arts courses on the development of IM. However, quantitative data analysis procedures worked with multiple scales and not all of the outcomes showed improvement as might be expected when results are based on natural maturation. Furthermore, multiple data analysis procedures were employed,

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[46] The 12 threats to *internal validity* include: history, testing, instrumentation, regression, mortality, maturation, selection, selection by maturation interaction, ambiguity about causal direction, diffusion of treatments, compensatory equalisation of treatment, compensatory rivalry (Cook and Campbell, 1979, as cited in Robson, 2002).

[47] The four threats to *external validity* include: selection, setting, history, and construct effects (LeCompte and Goetz, 1982, as cited in Robson, 2002).

and statistically significant changes were reported aiming to reduce the concern over improvement through maturation.

Through the different angles of use of existing surveys with established validity, testing of discriminant validity and consideration of *internal* and *external* validity from a critical realist perspective, the validity and any potential threats to validity have been established in this section.

### Reliability

Reliability of the remaining scales was tested using Cronbach's Alpha. While acceptable values for cognitive tests tend to be higher (above 0.8) than those suitable for ability testing (above 0.7), even values below 0.7 can be reasonably expected when measuring psychological constructs (Kline, 1999, as cited in Field, 2018). For this analysis, the conventionally acceptable value for Cronbach's alpha of above 0.7 to 0.8 (Cortina 1993; Field, 2018; Pallant, 2013) was achieved by all components or scales generated through PCA (based on the 192 respondents who completed the survey in the pre-test, from here on: Total pre-test). Corrected item-total correlations were considered to ensure these were consistently above at least 0.3. As Cronbach's alpha is (among others) dependent on number of items in the scale and high alpha levels are more difficult to achieve with scales that contain fewer items (Cortina 1993; Field, 2018; Pallant, 2013; Taber, 2018) average inter-item correlations were also taken into consideration. Here, mean values between 0.15 to 0.5 are acceptable, meaning that values below 0.15 do not suggest sufficient correlation among items and above 0.5 suggest such strong correlations that there may be redundancies in items. In subsequent reliability testing, namely reliability testing based on the pre- and post-tests with 65 paired respondents,[48] reliability values tended to be lower, especially at the post-test. Items that compromised the internal reliability of a scale were consequently removed based on considerations of the criteria outlined above.

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[48] This means that the respondents answered both, the pre-test as well as the post-test and their results were paired for the purpose of the analysis, from here on labelled as *Paired pre- test* and *Paired post-test*.

Analysis of Quantitative Survey Responses

As a result, the analysis of quantitative survey responses was conducted with seven scales on a sample of 65 respondents who all completed the survey in both, the pre- and the post-test (paired sample). In the analysis process the following steps were followed:

1. According to Pallant (2013) the generally low correlations rule out Multivariate Analysis of Variance (MANOVA). Pallant recommends conducting multiple univariate analyses of variance instead when the dependent variables are not moderately correlated (Pallant, 2013). Therefore, mixed between-within subjects ANOVA (Pallant, 2013) also known as split-plot ANOVA (SPANOVA) (Tabachnick & Fidell, 2013) was used to identify differences between two time points (i.e. the pre-test and the post-test) between students who opted for a DP Arts subject and those who did not opt for a DP Arts subject. This analysis was conducted on all seven scales.

2. As a follow-up, a one-way between-groups analysis of covariance (ANCOVA) (Pallant, 2013) was used to consolidate any potential effect of the choice between DP Arts and DP Non-Arts on the post-test results when controlling for the pre-test results (covariate). The independent variable was DP Arts choice, the dependent variable were the post-test mean scores of the relevant scale, and the covariate were the mean scores on the pre-test for that same scale.

(Note: This analysis was only possible for four of the seven scales (scales one, four, five and seven), because ANCOVA has a range of very specific and very stringent assumptions (Pallant, 2013) that were not met consistently by all scales.)

*Qualitative Data Analysis*

The qualitative analysis of student responses to open-ended survey questions was conducted using theoretical (deductive) thematic analysis meaning that the theoretical basis of IM as established through the literature was used to analyse the data. Furthermore, the analysis followed a semantic approach, by which any information derived from the responses was considered as much as possible for its face-value rather than considering implied interpretations or deeper meaning. The qualitative data analysis process followed the seven steps of thematic data analysis as described by Braun & Clarke (2006). The steps include:

- Step 1: getting acquainted with the data (including, but not limited to, organising, reading, reviewing, transcribing data and recording initial thoughts),
- Step 2: systematically extracting and noting re-occurring responses, thoughts or features,
- Step 3: identifying themes,
- Step 4: consolidating themes,
- Step 5: naming themes, and
- Step 6: analysing and interpreting data (developing a report) (Braun & Clarke, 2006).

These seven steps were followed in a linearly integrated fashion, meaning that while the steps were followed in order, they sometimes synchronously overlapped and happened simultaneously. For example, recurring responses and themes were noted down from the start and as data analysis continued were consolidated and revised throughout the data analysis process. Throughout this process, the naming of themes also emerged. However, the general order or direction of steps was maintained at all times throughout the analysis. The research question that specifically set the focus for the data analysis of the open-ended survey questions was:

> To what extent does students' understanding of the IBLPAs correlated with the IB's definition of these attributes?

## Getting Acquainted with the Data

Responses to six open-ended questions were analysed as part of the thematic qualitative analysis. These open-ended questions yielded a total 1496 responses in comment format. The total number of responses included responses to the pre- and post-test survey across all cohorts. The number of responses to individual questions that were analysed is presented in the table 22 overleaf.

*Table 22: Open-ended survey questions with total number of responses*

| | Survey question | Responses (of 340) |
|---|---|---|
| 1 | Can you share an example of a time or situation when you acted **knowledgeable** in a cross-cultural situation? Please describe. | 250 |
| 2 | Can you share an example of a time or situation when you acted **open-minded** about another culture or in a cross-cultural situation? Please describe. | 263 |
| 3 | Are there other forms of **communication or expression** you use, when you can't express yourself through language? Can you share an example of a time or situation when you used specific communication skills in a cross-cultural situation? Please describe. | 267 |
| 4 | Can you share an example of a time or situation when you used specific ways of **critical thinking** in or about a cross-cultural situation? Please describe. | 206 |
| 5 | Can you share or describe an example of a time or situation when you thought you were particularly **caring or principled** in a cross-cultural situation? Please describe. | 298 |
| 6 | Can you share an example of a time or situation in which you took **action** on a global or cross-cultural issue? Please describe. | 212 |
| | **Total** | **1496** |

Initial screening, note-taking and re-organisation focussed on aspects such as:

- any existing themes and how these were represented in practice

- any new and/or interesting perspectives

- attribute confusion: the student's response did not match (the definition of) the attribute

- cross-attribute responses: students shared responses that answered to multiple categories

- the nature of the response: interpersonal versus intrapersonal: responses were checked for demonstration of intrapersonal or interpersonal qualities to identify if students selected interactive or self-reflective examples in response to an attribute.

## Systematically Extracting and Noting (Re-)occurring Responses, Thoughts or Features (Coding)

Compelling and noteworthy patterns, features and thoughts were identified in the responses to which initial codes were applied (Braun & Clarke, 2006). Each response was read and from each valid response (at least one) essential message was extracted. In lengthier and more complex

responses, several key messages may have been extracted. These extracts were then coded into a more generic message that could then be applied across multiple responses, for example:

> **Response:** "I defended my friend from another culture when she was verbally attacked."
> **Extract:** Defend a friend from another culture who was attacked.
> **Code:** Stand up for someone (e.g. who is bullied/mistreated due to race/culture/ethnicity)

From the initial codes, patterns were identified which helped to further organise and map the data into clusters with the same or similar features or characteristics (Braun & Clarke, 2006).

## Identifying Themes

As a next step, patterns of groups and sub-groups of codes were established and refined. These were compared to themes from IB documentation (identified in chapter three) and correlations were logged (Braun & Clarke, 2006). These would later help to establish a greater insight into possible meanings of existing definitions to students. Initially, this was done for each LPA or survey question. In addition, codes and patterns that potentially correlated with themes from other categories were noted and logged. This was important to consolidate if recurring codes were part of a more holistic response pattern, or if responses were misplaced in which case responses would be (re-)moved. Furthermore, themes from attributes that had no designated question, such as *balanced*, were checked against the responses to all questions and any occurrences. If a response or code did not connect to an *existing* theme but offered a new ideas or perspective on the attribute, then these were logged separately as potentially *emerging* themes. When ideas or perspectives from multiple student responses or extracts connected, these were combined into a new or emerging theme. In addition, recurring features and characteristics of responses started to emerge which were noted and collated. As the initial analysis progressed for each question, potential categories were established based on the responses that were given by the respondents. These categories were established individually for each question or LPA and consolidated throughout the analysis. All student responses were consequently assigned to a category.

## Consolidating Themes and Categories

At this point, all established themes (presented in chapter six) and categories (introduced in chapter seven) were carefully revised to ensure they were indeed relevant to and constituted a valid representation of the data and codes (Braun & Clarke, 2006). The consolidation also ensured that there was no overlap between themes and alignment of categories across LPAs. Therefore, the consolidation happened in three ways:

1. a consolidation of themes,
2. a consolidation of categories, and
3. a consolidation of the allocation of each student response to a specific level.

In detail this means that the themes were confirmed and further refined and simplified in regard to the content from student responses. The number of themes were reduced – where possible – to ensure different themes were not describing the same or similar aspects of a construct (i.e. a LPA). Afterwards, each student response was checked, and the identified themes were either confirmed or corrected for each extract. Likewise, the assigned categories were checked, confirmed and consolidated for each response. At this stage, the categories were mapped across LPAs and compared to ensure alignment. This included, for example, that a category three response in one question would align with a category three response in another question with regard to complexity, characteristics and attitudes. The cross-checks were also carried out in follow-up analyses. For individual student responses this meant that now the final category could be assigned to each extract.

## Naming Themes

After themes and categories were confirmed and consolidated, the collected data were used to generate a definition and label for these. The definitions were then further refined by cross comparing the definitions of themes across LPAs to avoid overlap and to ensure the picture of IM that had emerged from the data was represented accurately and thoroughly.

## Analysing Data

When all responses were coded, the data were used for descriptive analysis to identify the frequency of themes and categories (presented in chapter eight). The frequencies were compared across pre- and post-test responses of students based on:

- Candidate status

- Prior IB education

- School type

- Cultural or ethnic background

- Gender, and

- Arts choices, including options related to DP Arts, prior Arts, and Arts outside the DP.

## Interpreting Data and Developing a Report

The comprehensive information and data collected through the previous steps informed the write-up and presentation of the findings. While the additional or emerging themes are introduced in chapter six, the identified categories are presented in chapter seven. In addition, particularly interesting and illustrative examples of student responses were selected to support the presentation of themes and categories presented in chapters six and seven. The details and findings of the descriptive analysis described in the previous step (Analyse Data) is presented in chapter eight. The interpretation of the collected data along with a triangulation of the quantitative and qualitative findings is then presented in chapter nine.

## Validity

The *transferability* for the qualitative analysis was achieved through detailed description of the sample. Findings may be transferrable to populations that have a similar representation as the sample that was used in this study. Here, an overrepresentation of private and semi-private schools and a slight overrepresentation of female versus male students is important to note when considering the transferability of the findings to other settings. (For more details on the full sample, please refer to the relevant section on *sampling and data collection* earlier in this chapter). The *authenticity* of findings was established through qualitative data analysis. Here, the answers to open-ended questions were based on students' experiences which they chose to share about (optionality of questions). The *dependability* of findings from qualitative data analysis was established through choice of methodology (survey design) which aimed to reduce researcher influence or bias by distributing an online, self-completion survey tool. The researcher did not connect with the participants before or during completion of the survey. Furthermore, identification of themes may be impacted by preconceived ideas which a researcher might –

subconsciously – be looking for (Ely et al., 1997, as cited by Braun & Clarke, 2006). For this reason, the thematic analysis was conducted with a semantic approach, meaning information was taken as much as possible at face-value without adding interpretations to any of the shared student experiences.

## Section 3: Theoretical and Philosophical Considerations

Based on the researcher's belief system, the most meaningful positions have been those that are associated with a middle ground on the spectrum of research philosophies, specifically those of a critical realist with pragmatist tendencies. Pring (2015) argues that both, a physical reality and a created reality, exist. In the context of intercultural education, it is logically conceivable that in social reality and life, the underlying mechanisms and processes are impacted and shaped by cultures and societies as well as the (social) actors/agents that engage with them (Crotty, 1998). In line with the critical realist paradigm, the researcher believes that a reality exists, and its manifestations can be observed. However, the underlying mechanisms and structures are not accessible through observation but need to be investigated and unpacked with the relevant research tools (Saunders et al., 2019). In the researcher's view, reality is complex and manifold, difficult to fully understand due to underlying mechanisms, processes and structures, especially in an educational context. The purpose of research is then to uncover and explain these underlying processes to better understand social and educational phenomena or constructs. This is evident in the choice of research problem which seeks to uncover if Arts choice in DP Arts-students versus DP Non-Arts-students impact the development of constructs and attributes associated with IM in students, but also to identify – through students' experiences – how their understanding of IM aligns with a theoretic framework established through the conceptualisation derived from literature on IM in the IB.

Furthermore, such 'uncovering' in an educational and arts-based context should – in the researcher's view – always have a practical purpose and meaning, namely, to inform and improve practice. Likewise, the practice and reality of the context should inform the research design to make the research credible and meaningful to the community (Doyle et al., 2009; Robson, 2002). This view resonates with the pragmatist tendencies of the researcher. Driven by a strong sense for practical meaning, pragmatism embraces the spectrum of philosophical paradigms in order to

develop the most meaningful research approach in the light of the research problem and to generate meaningful practical outcomes. Pragmatism often employs mixed method research, although this is not an exclusive choice to pragmatism and agreeable with the critical realist paradigm. The choice of a mixed method approach along with the pragmatist conviction that research must serve practical purposes, generate practical outcomes or solutions and bear practical relevance in the field of education demonstrate the researcher's pragmatist tendencies (Doyle et al., 2009; Pring, 2015; Robson, 2002; Saunders, 2019).

In relation to the study, this means that the research design links theory with practice through a mixed-method design as it follows the critical realist approach to testing theory with pragmatist considerations regarding the practicality and purpose of the research for practice. In other words, in line with a critical realist orientation, the study aimed to strike a balance between identifying and working within existing theory to establish credibility (Bryman, 2004; Crotty, 1998; Saunders, 2019) and appropriate practical relevance and implications, for example in informing curriculum design, teaching and learning, etc. (Maxcy, 2003, as cited in Doyle et al., 2009; Pring, 2015) in line with the study's pragmatist tendencies (Saunders et al., 2019). To achieve this, the study identified existing thinking, views and established conceptualisations around IM within IB documentation, in practice, and in research as discussed in chapter three. In line with critical realist approaches, a conceptual framework was consequently adopted based on literature, but it must be emphasised that this framework was constructed and is therefore changeable. Consequently, the framework was tested through a mixed-method survey design and analysis as explained earlier in this chapter which was aimed to better understand the processes and mechanisms at work in developing IM and any potential value or contributions of Arts education to developing IM. This opened up possibilities for recommendations to inform or adjust existing theory (Bryman, 2004; Robson, 2002) and practice (Pring, 2015; Saunders, 2019).

A researcher's belief system may affect the choice of research topics and questions (ontology) (Guba & Lincoln, 1994; Mack, 2010; Saunders et al., 2019) and the way knowledge is investigated (epistemology) (Crotty, 1998; Mack, 2010; Saunders 2019) meaning the research design along with the choice of methodology and methods for data collection, analysis and interpretation. From an axiological point of view, it seems reasonable to acknowledge that no research can be entirely

value-free. Every engagement at every level from establishing a research focus, to generating the research questions, developing the research design and evaluating the outcomes will to some extent be impacted by the researcher's identity, values and thinking which in turn are impacted by our conditioning and socialisation (Saunders, 2019). However, while it is important to acknowledge that – in line with a critical realist view – one cannot separate oneself entirely from the research process, it is equally important to strive to minimise any impact this might have on the study. From a musicians' perspective, a passion for the Arts has inspired the choice of research focus and lead to questions regarding the role of the Arts in developing IM. This same passion has also driven and energised the research process throughout this study. However, this was balanced with the researcher's commitment to deliver credible and unbiased research outcomes and – from a teacher's perspective – with a great concern for the students who may be affected by the findings, outcomes and recommendations resulting from the research. For this reason, a mixed-method research design with a quantitative survey and a qualitative section to triangulate the results was chosen. The survey was distributed online, meaning any potential researcher influence during data collection was minimised. In the data analysis and evaluation process, care was taken to not overinterpret any responses or results of the research, which is evident, for example, in the choice of a semantic approach to thematic analysis. Finally, during the interpretation and reporting stage any personal opinions or convictions are indicated to ensure that these are clear to the reader.

In summary, in the Arts as well as in education, mechanisms, processes and structures are at work that are waiting to be uncovered. While reality is observable, not all underlying mechanisms and process are observed at all times. Furthermore, what we observe is impacted by our social and cultural conditioning and perceptions. As researchers we must aim for objectivity whilst acknowledging that in the social world and life, there will be complex structures that influence our understanding. Furthermore, meaning is constantly created and (re-)negotiated through interaction between people (e.g. students and teachers, schools with other schools, teachers with the IB, artists with artists, etc.) but also interaction with an object (e.g. a piece of Art or Music, an essay, an expression or experience relating to IM, etc.). Humbly choosing the middle ground, acknowledging the strengths and challenges in all approaches and aiming to apply the most common-sense and rigorous form of investigation of the chosen research problem was the aim of this research design. The practicality and freedom of pragmatism paired with the focus and rigor

of critical realism have been helpful in defining and articulating the researcher's philosophical beliefs, position and aim for objectivity, and justifying the design of the study.

## Section 4: Ethical Considerations

This research study has followed ethical guidelines as laid out and described by associations such as the *British Educational Research Association* (BERA, 2018) and the *British Sociological Association* (BSA, 2017), and authors including Robson (2002) and Bryman (2004). The study was approved by the Durham University Ethics Committee prior to data collection. The aforementioned associations and authors explain ethical conduct and considerations for conducting research in the social sciences. These include, but are not limited to:

- informed consent,
- protection of minors,
- voluntary participation,
- safe keeping of data through mindful data collection and management,
- protection from harm,
- confidentiality, and
- ethical reporting and presenting information.

The study followed the respective guidelines and recommendations regarding choice of medium and use of appropriate language (e.g. age appropriate, availability of translations for non-English speakers, appropriate format and platform), communication of focus, purposes, and aims of the research, and publication-related information (BERA, 2018; Bryman, 2004; BSA, 2017; Robson, 2002). In this context, information about the research was distributed to three different groups of people in three different formats:

- schools and teachers via email,
- parents or guardians via an invitation letter, and
- participating students via an information section at the beginning of the survey.

All groups had the right to not participate or to withdraw participation at any point.

Information about the research and its purpose, including the affiliation with the Durham University PhD programme, the various stages of the study, expectations, the work involved, and a rough estimation of time commitment were shared via email with schools (BERA, 2018; BSA, 2017). Once schools agreed, (lead-)teachers at those schools who agreed to participate, were asked to support the research with administrative tasks, such as distributing an information and consent form to students and parent and to organise a time for students to take the survey. A detailed information letter for parents or guardians was shared with teachers. Via this letter, parents or guardians were given contact details of the ethics committee, should they have doubts, questions, concerns, complaints or general questions about the research. Teachers, parents or guardians and participating students also had access to the researcher's email address in case they had questions about the study.

Teachers distributed these forms to parents or guardians of students under the age of 18 who would potentially participate. The letter contained information about:

- the study, its purpose and university affiliation,
- voluntary participation and the right to withdraw,
- time commitment and tasks involved in the research study,
- data collection, analysis and storage,
- protection from harm,
- the confidentiality and anonymisation, and
- the approach to the reporting of findings.

The information letter further explained that the study involved a survey at two time points, a pre-test at the beginning of the students' DP studies and a post-test at the end of their DP studies prior to their final exams.

At the end, the letter contained a consent section for parents or guardians to complete as an opt-out[49] (prior to 31 May 2018) or opt-in[50] (after 31 May 2018) form. In addition, students had to make an active choice to participate in the study after reading the participant information sheet at the beginning of the survey. Once the survey was completed and students had submitted the answers, these could not be withdrawn. Parents/guardians were made aware of this in the information letter. The participation in the study was entirely voluntary (BERA, 2018; Bryman 2004; BSA, 2017; Robson, 2002). Parents and students were able to withdraw from the study either at the start or throughout the research project. It was communicated to parents and students in an information letter that this withdrawal would have no impact or consequences on the schoolwork or their relationship with the school. (For an example of the information letter to parents, see appendix 5.)

Data were collected via an online survey with the online survey tool onlinesurveys.ac.uk (formerly BOS). Any data collected for this study was stored digitally with only the researcher using and working with this data (BSA, 2017). The survey itself was anonymous and students were asked to use a personal anonymous identification code which they set up themselves based on a set of instructions. Students were asked to note down their code so they could use it at the end of the survey so they could reuse it in the post-test survey. At the end of the survey students were asked, if they would be willing to respond to follow-up questions. In that case they were able to leave an email address. In this way, the research had some limited access to identifying information. However, the information was used only for administrative purposes, to keep track and/or to follow up on specific responses. Where identifying information appeared this was removed during the data analysis and report-writing phases (BSA, 2017). While portraying the outcomes authentically,

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[49] The initial data collection for this study took place prior to 31 May 2018. At this time, opt-out forms were acceptable to gain consent (BERA, 2018). The opt-out form was administered to parents with a given return-date. Parents or guardians had the opportunity of withdrawing their child by signing and returning the form to the school/teacher. Once they returned the signed form, the student was removed from the sample. Once the date had lapsed the survey was sent to teachers who administered it to the students to complete either in a designated time during the school day or at home. Students were given the choice to withdraw their participation after reading an information section at the beginning of the survey. The post-test for those cohorts that started before 31 May 2018 was conducted under the same opt-out form, meaning that no additional form was administered.

[50] Regulations regarding informed consent changed after 31 May 2018. After 31 May 2018 an opt-in form was used for any students that were to participate in the study. The opt-in form was sent to the parents. Once parents had consented, students were still given the option not to participate after reading the participant information sheet.

participants have been protected from identification, meaning that any personal information and survey responses were anonymised, identifying details, for example in qualitative statements, have been removed (Bryman, 2004; BSA, 2017), and a balance struck between respecting participants' appearance and sharing truthful records (Bryman, 2004; Robson, 2002). The researcher has not and will not share any identifying information, names or student records with schools or any third party. Results of this study may be shared in a variety of ways, including the publication of results as part of a PhD thesis, academic papers, and conference presentations. At the end of the research and upon publication of the PhD thesis, participants will have access to a summary of the findings and outcomes via the participating schools (BSA, 2017).

Participating in this study, which was survey based, did not pose any direct and identifiable risks or harm to students (Bryman, 2004; Robson, 2002). However, there was a possibility for students to feel discomfort when responding to the questions in the survey or when writing up qualitative responses due to the personal nature of some of the questions, and the critical engagement with their own attitudes and perceptions, which may have led students to become (unexpectedly) more self-aware (BSA, 2017). Participating in this study did not provide any benefits to parents or guardians, students or their schools. However, through the participation and critical engagement with questions relating to the LPAs and IM, a foundational concept of an IB education, may have allowed students to become more aware of their own attitudes and perceptions. Likewise, the research outcomes may benefit future students and schools.

## Summary

This chapter has explained the research design of this study, namely the choice of a real-world problem which generated specific questions to gain insight into the underlying and complex mechanisms at play when developing IM. The chapter further discussed the choice of methodology in a repeated measures (longitudinal), comparative, and mixed method design to answer the research questions. The *credibility* and *rigor* of the study has been established through a detailed account of the research design, including the employed methodologies and methods, along with the theoretical, philosophical and ethical considerations that have guided this research. Furthermore, the development of the survey based on existing survey instruments was demonstrated along with a detailed explanation of the sampling and data collection strategies that

were employed. The data analysis strategies using PCA, SPANOVA, one-way between-groups ANCOVA for quantitative data and thematic analysis for qualitative data were explained along with considerations of reliability and validity of the survey. In this way, the *confirmability* of findings has been addressed through triangulation by means of a mixed-methods design and by placing the study into the wider research context of IM in IB related literature. Theoretical and philosophical considerations that explained the researcher's beliefs in the context of the research design and positioned this study within the paradigm of a critical realist with pragmatist tendencies. Ethical considerations demonstrated the careful and thorough attention to the rights of participants employed in this study and further consolidated the tenacity and diligence with which this study was approached. The next four chapters will present the findings of this study. Chapter five introduces the findings from the quantitative analysis of the IMS, followed by chapters six to eight on qualitative findings. Chapter six shares the themes that have emerged from qualitative analysis, chapter seven introduces the response categories which have emerged, and chapter eight presents the findings from the descriptive analysis that was applied to qualitative responses.

# Chapter 5: Quantitative Data Analysis

## Introduction

The following section presents the findings of the quantitative analysis in relation to the scales that were generated from PCA. Reliability analysis was conducted on all scales to establish the final survey instrument which was used for further analysis of pre- and post-test responses. For this, the initial reliability analysis of scales was conducted on the 192 pre-test responses used in the PCA, followed by reliability analysis for the 65 students who responded to both pre-test and post-test. The first section of this chapter explains how the final set of seven scales was selected. The second section presents the findings of the analysis of (paired) participant responses based on seven scales to identify changes in mean scores between DP Arts-students and DP Non-Arts-students.

## Section 1: Analysis of Scales of the International Mindedness Survey

### Component 1: Perceived Intercultural Knowledge and Knowledgeable Behaviour

Variables in this component or scale include questions pertaining to students' perceptions of their intercultural knowledge as well as the effective use or application of such knowledge in intercultural situations. Conceptually, the scale may be associated with the IBLPA *knowledgeable*.

*Component Variables (Questions)*

1. I know the rules for expressing nonverbal behaviour in another culture. (survey item 13.5.)
2. I know the rules (e.g. vocabulary, grammar) of other languages. (survey item 9.4.)
3. I know the arts and crafts of other cultures. (survey item 15.1.)
4. I know the marriage systems of other cultures. (survey item 13.1.)
5. I am conscious of the cultural knowledge I use when interacting with people with different cultural backgrounds. (survey item 16.1.)
6. I know the cultural values and religious beliefs of other cultures. (survey item 11.1.)
7. I am able to communicate in different ways with people from different cultures. (survey item 13.4.)
8. I can discuss cultural differences from an informed perspective. (survey item 10.1.)
9. I know the legal and economic systems of other cultures. (survey item 9.1.)

10. I am conscious of the cultural knowledge I apply to cross-cultural interactions. (survey item 16.5.)

11. I check the accuracy of my cultural knowledge as I interact with people from different cultures. (survey item 14.5.)

*Reliability Statistics*

This scale of eleven items achieved Cronbach's Alpha values [51] above 0.8 across all tests, suggesting good internal reliability (see table 23). The average inter-item correlations were acceptable with 0.39 (total pre-test: 192 responses), 0.39 (paired pre-test: 65 responses), and 0.37 (paired post-test: 65 responses) and the corrected item-total correlation was above 0.3 on all items (see appendix 6: Component 1). Therefore, the entire scale was retained for further analyses.

*Table 23: Reliability test results for component 1 (Perceived intercultural knowledge and knowledgeable behaviour)*

**Reliability Statistics**

**Total Pre-test (192 responses)**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
|---|---|---|
| .870 | .876 | 11 |

**Pre-test on pairs (65 responses)**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
|---|---|---|
| .872 | .877 | 11 |

**Post-test on pairs (65 responses)**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
|---|---|---|
| .858 | .866 | 11 |

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[51] In this text, the reported Cronbach's alpha values are based on standardised items.

**Component 2: Ethical Intercultural Values**

Variables in this component or scale include questions pertaining to students' *Ethical intercultural values*. Conceptually, the scale may be associated with the IBLPA *principled.*

*Component Variables (Questions)*

1. I don't care if people make racist statements against other racial/ethnic groups. (survey item 12.4.)
2. I rarely think about the impact of a racist or ethnic joke on the feelings of people who are targeted. (survey item 5.5.)
3. When I hear people make racist jokes, I tell them I am offended even though they are not referring to my racial/ethnic group. (survey item 15.5.)
4. I am sensitive to those who are discriminated against. (survey item 12.2.)

*Reliability Statistics*

This scale achieved a Cronbach's alpha value of 0.75 (> 0.7) in the total pre-test (192 responses) with only four scale items (even though high alpha levels are more difficult to achieve as explained in chapter four), initially suggesting acceptable internal reliability (table 24). The average inter-item correlation mean value was 0.43 for the total pre-test. In the paired pre-test with 65 responses, the Cronbach's alpha value was 0.75. However, in the post-test this value was 0.68 (<0.7). Nevertheless, the average inter-item correlations remained strong with mean values of 0.43 in the pre-test and 0.34 in the post-test. All items scored above 0.3 in the corrected item-total correlation (see appendix 6: Component 2). Therefore, all items in this component or scale were retained for further analyses.

**Reliability Statistics**

**Total pre-test (192 responses)**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
|---|---|---|
| .745 | .753 | 4 |

**Paired pre-test (65 responses)**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
|---|---|---|
| .741 | .750 | 4 |

**Paired post-test (65 responses)**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
|---|---|---|
| .664 | .675 | 4 |

## Component 3: Personal Intercultural Confidence and Identity

Variables in this component or scale include questions pertaining to students' self-confidence and perceived ability to speak up for themselves, their values and principles, as well as their identity.

### *Component Variables (Questions)*

1. I can explain my personal values to people who are different from me. (survey item 6.2.)
2. I put my beliefs into action by standing up for my principles. (survey item 4.3.)
3. I know who I am as a person. (survey item 8.2.)
4. I am willing to defend my own views when they differ from others. (survey item 4.2.)
5. I have a definite purpose in my life. (survey item 10.2.)
6. I feel comfortable expressing my views regarding a pressing global problem in front of a group of people. (survey item 9.5.)
7. I can discuss cultural differences from an informed perspective. (survey item 3.5.)
8. When I know my friends are treated unfairly because of their racial or ethnic backgrounds, I speak up for them. (survey item 7.5.)

### *Reliability Statistics*

This scale of eight items achieved Cronbach's alpha values above 0.7 in all reliability tests, namely 0.79 in the total pre-test, 0.74 in the paired pre-test, and 0.72 in the paired post-test suggesting an

overall acceptable internal reliability (table 25). Furthermore, average inter-item correlations remained acceptable across tests with a mean of 0.32 in the total pre-test, 0.26 in the paired pre-test, and 0.24 in the paired post-test. All items scored above 0.3 for the corrected item-total correlation in the total pre-test, although this was not the case for the reliability tests conducted on the paired pre- and post-test responses (e.g. survey item 3.5. scored only 0.13 in the paired pre-test; survey item 4.2. scored only 0.21 in the paired post-test) (see appendix 6: Component 3). However, the items were not removed due to the acceptable Cronbach alpha values and acceptable average inter-item correlations across all reliability tests for this scale and because removal did not improve the reliability of the scale across all tests.

*Table 25: Reliability test results for component 3 (Personal intercultural identity and confidence)*

**Reliability Statistics**

**Total pre-test (192 responses)**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
|---|---|---|
| .779 | .791 | 8 |

**Paired pre-test (65 responses)**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
|---|---|---|
| .730 | .739 | 8 |

**Paired post-test (65 responses)**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
|---|---|---|
| .707 | .718 | 8 |

## Component 4: Effective Intercultural Communication

Variables in this component or scale include questions pertaining to students' perceptions of their *Effective intercultural communication*. Conceptually, the scale may be associated with the IB's LPA of being a *communicator*.

## Component Variables (Questions)

1. I change my nonverbal behaviour when a cross-cultural situation requires it. (survey item 7.4.)

2. I often adapt my communication style to other people's cultural background. (survey item 11.4.)

3. I change my verbal behaviour (e.g. accent, tone) when a cross-cultural interaction requires it. (survey item 3.4.)

4. I use pause and silence differently to suit different cross-cultural situations. (survey item 5.4.)

## Reliability Statistics

This scale of four items achieved Cronbach alpha values above 0.7 across all tests (i.e. 0.74 in the total pre-test, 0.77 in the paired pre-test, and 0.74 in the paired post-test), suggesting acceptable internal reliability despite the low number of items (see table 26). The average inter-item correlations were acceptable with mean values of 0.41 (total pre-test), 0.46 (paired pre-test), and 0.42 (paired post-test) and the corrected item-total correlation was above 0.4 on all items (see appendix 6: Component 4). Therefore, the entire scale was retained for further analyses.

*Table 26: Reliability test results for component 4 (Effective intercultural communication)*

**Reliability Statistics**

**Pre-test (192 responses)**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
|---|---|---|
| .735 | .739 | 4 |

**Paired pre-test (65 responses)**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
|---|---|---|
| .771 | .774 | 4 |

**Paired post-test (65 responses)**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
|---|---|---|
| .731 | .742 | 4 |

## Component 5: Intercultural Open-mindedness

Variables in this component or scale include questions pertaining to students' open-mindedness to other cultures. Conceptually, the scale may be associated with the IBLPA *open-mindedness*.

*Component Variables (Questions)*

1. I enjoy living in cultures that are unfamiliar to me. (survey item 9.2.)
2. I welcome working with people who have different cultural values from me. (survey item 16.3.)
3. I am confident that I can thrive in any culture or country. (survey item 16.4.)
4. I enjoy interacting with people from different cultures. (survey item 3.2.)
5. I seek opportunities to speak with individuals of other racial/ethnic backgrounds about their experiences. (survey item 17.2.)
6. I am sure I can deal with the stresses of adjusting to a culture that is new to me. (survey item 7.2.)
7. I enjoy when my friends from other cultures teach me about our cultural differences. (survey item 13.3.)
8. *I feel uncomfortable when I am around a significant number of people who are racially/ethnically different than me. (survey item 4.4.) (This survey item has been removed from further analysis.)*
9. I adjust my cultural knowledge as I interact with people from a culture that is unfamiliar to me. (survey item 9.3.)

*Reliability Statistics*

This scale of nine items achieved Cronbach alpha values of 0.81 in in the total pre-test, 0.85 in the paired pre-test, and 0.78 in the paired post-test, suggesting good and acceptable internal reliability (see table 27). The inter-item correlations values were acceptable with means of 0.32 (total pre-test), 0.38 (paired pre-test), and 0.28 (paired post-test). The corrected item-total correlation values were 0.37 and above in the total pre-test and the paired pre-test. However, on the paired post-test the corrected item-total correlation on survey item 4.4. was only 0.19 (<0.3). This item was therefore removed as its removal improved the reliability of the scale in the paired post-test with little impact on the reliability of the other tests (paired post-test: Cronbach's alpha 0.79; inter-item

correlations mean 0.33; all values in corrected item total correlation above 0.4). This was of particular importance for the reliability of the paired pre-test as the paired pre-test was going to be used for further analyses (Cronbach's alpha 0.84; inter-item correlations mean 0.4; all values in corrected item total correlation above 0.4) (see table 27 and appendix 6: Component 5).

*Table 27: Reliability test results for component 5 (Intercultural open-mindedness)*

**Reliability Statistics**

**Pre-test (192 responses)**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
|---|---|---|
| .794 | .809 | 9 |

**Survey item 4.4. removed**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
|---|---|---|
| .796 | .807 | 8 |

**Paired pre-test (65 responses)**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
|---|---|---|
| .834 | .845 | 9 |

**Survey item 4.4. removed**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
|---|---|---|
| .829 | .839 | 8 |

**Paired post-test (65 responses)**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
|---|---|---|
| .765 | .778 | 9 |

**Survey item 4.4. removed**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
|---|---|---|
| .794 | .794 | 8 |

## Component 6: Critical Thinking, Inquiry and Reflection

Due to the low number of factor loadings this scale was removed. The decision was supported by low Cronbach's alpha values (<0.7) in all three tests (see table 28). (For average inter-item mean values and corrected item-total correlation, see appendix 6: Component 6.) Therefore, no further analyses were conducted with this scale.

### *Component Variables (Questions)*

1. I rarely question what I have been taught about the world around me. (survey item 4.1.)
2. I rely primarily on authorities to determine what is true in the world. (survey item 6.1.)

*Table 28: Reliability test results for component 6 (Critical thinking, inquiry, reflection)*

**Reliability Statistics**

**Pre-test (192 responses)**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
|---|---|---|
| .604 | .604 | 2 |

**Paired pre-test (65 responses)**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
|---|---|---|
| .682 | .682 | 2 |

**Paired post-test (65 responses)**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
|---|---|---|
| .685 | .690 | 2 |

## Component 7: Intercultural Empathy

Variables in this component or scale include questions pertaining to students' intercultural empathy. Conceptually, the scale may be associated with the IBLPA *caring*.

### *Component Variables (Questions)*

1. It is difficult for me to relate to stories in which people talk about racial/ethnic discrimination they experience in their day to day lives. (survey item 10.5.)
2. When other people struggle with racial/ethnic oppression, I share their frustration. (survey item 10.4.)

3. It is difficult for me to put myself in the shoes of someone who is racially/ethnically different from me. (survey item 8.5.)

4. I share the anger of those who face injustice because of their racial/ethnic backgrounds. (survey item 8.4.)

5. I don't know a lot of information about important social and political events of racial and ethnic groups other than my own. (survey item 11.5.) *(This survey item has been removed from further analysis.)*

6. It is easy for me to understand what it would feel like to be a person of another racial/ethnic background other than my own. (survey item 12.5.)

7. I can relate to the frustration that some people feel about having fewer opportunities due to their racial/ethnic backgrounds. (survey item 4.5.)

*Reliability Statistics*

This scale achieved a Cronbach's alpha value of 0.76 (> 0.7) in the total pre-test with seven scale items, initially suggesting acceptable internal reliability (table 29). In the paired pre-test the Cronbach's alpha value was 0.72. However, in the paired post-test this value was only 0.61 (<0.7). The average inter-item correlations had mean values of 0.31 in the total pre-test, 0.27 in the paired pre-test, and only 0.18 in the post-test. In the corrected item-total correlations all items were initially above 0.3 in the total pre-test. However, the corrected item-total correlation had items with values below 0.3 in the paired pre- and post-tests (see appendix 6: Component 7). Especially survey item 11.5. seemed problematic as it had particularly low values in both, paired pre-test (0.17) and paired post-test (0.04). Furthermore, the item was conceptually not a good fit (e.g. it related rather to a knowledge-based component than to an empathy-based component). The removal of this item improved Cronbach's alpha values in the paired pre-test from 0.72 to 0.75 and in the paired post-test from 0.61 to 0.66. Furthermore, the average inter-item correlation increased from 0.27 to 0.33 in the paired pre-test and from 0.18 to 0.24 in the paired post-test. After removing survey item 11.5, the average inter-item correlation value also increased from 0.31 to 0.34 in the total pre-test. Moving forward the scale was used with six instead of the initially seven scale items, meaning survey item 11.5. was removed from further analyses due to the overall positive impact on reliability backed by conceptual considerations.

**Reliability Statistics**

**Pre-test (192 responses)**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
|---|---|---|
| .755 | .762 | 7 |

**Item 11.5. removed**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
|---|---|---|
| .749 | .757 | 6 |

**Paired pre-test (65 responses)**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
|---|---|---|
| .710 | .720 | 7 |

**Item 11.5. removed**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
|---|---|---|
| .737 | .749 | 6 |

**Paired post-test (652 responses)**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
|---|---|---|
| .596 | .611 | 7 |

**Item 11.5. removed**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
|---|---|---|
| .651 | .659 | 6 |

## Component 8: Global Engagement and Social Responsibility

Variables in this component or scale include questions pertaining to students' *Global engagement and social responsibility*. Conceptually, the scale may be associated with the IBLPA *risk-taker* and the notion of 'a willingness to act'. This scale links to the construct *Global Engagement*.

*Component Variables (Questions)*

1. I think of my life in terms of giving back to society. (survey item 6.3.)
2. I work for the rights of others. (survey item 14.3.)
3. I put the needs of others above my own personal wants. (survey item 12.3.)
4. I know several ways in which I can make a difference on some of the world's most worrisome problems. (survey item 14.1.)
5. I know how to help mitigate a global problem (environmental or social). (survey item 12.1.)
6. I consciously behave in terms of making a difference. (survey item 8.3.)

*Reliability Statistics*

This scale of six items achieved Cronbach's alpha values above 0.7 across all tests (i.e. 0.79 in the total pre-test, 0.72 in the paired pre-test, and 0.71 in the paired post-test), suggesting acceptable internal reliability with a relatively low number of items on the scale (below 10) (see table 30). The average inter-item correlations were acceptable with mean values of 0.39 (total pre-test), 0.30 (paired pre-test), and 0.29 (paired post-test). The corrected item-total correlation values were above 0.4 in the total pre-test and above 0.3 in the paired pre- and post-tests with the exception of one survey item (8.3.) with a value 0.27 (<0.3) in the paired pre-test. However, this item was not removed as its removal would have affected the reliability of the post-test (see appendix 6: Component 8). Therefore, the entire scale was retained for further analyses.

*Table 30: Reliability test results for component 8 (Global engagement and social responsibility)*

**Reliability Statistics**

**Total pre-test (192 responses)**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
|---|---|---|
| .792 | .790 | 6 |

**Paired pre-test (65 responses)**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
|---|---|---|
| .727 | .724 | 6 |

**Paired post-test (65 responses)**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
|---|---|---|
| .705 | .707 | 6 |

## Section 2: Pre- and Post-test Analyses

For the quantitative pre- and post-test analysis seven scales with the following titles were used:

- Scale 1: Perceived intercultural knowledge and knowledgeable behaviour
- Scale 2: Ethical intercultural values
- Scale 3: Personal intercultural confidence and identity
- Scale 4: Effective intercultural communication
- Scale 5: Intercultural open-mindedness
- Scale 6 (previously scale 7): Intercultural empathy
- Scale 7 (previously scale 8): Global engagement and social responsibility

An overview of the final survey with seven scales that were retained for final analyses can be found in appendix 7.

For the mixed between-within subjects ANOVA the following assumptions were met:

- a continuous interval scale was used as the level of measure by converting the Likert-type responses (Strongly agree, Agree, etc.) into numbers (1-6),

- sampling was partially random as discussed in chapter four,

- students completed the surveys independently, meaning the observations were independent of each other,

- the sample size for all analyses was above 30 responses, meaning any non-normalities of distribution should not have had an impact on the analyses (Pallant, 2013),

- equal variance of groups was established in each analysis through Lavene's test for equality of variance with significance levels >.05 indicating that the tests were not significant (Pallant, 2013), and

- homogeneity of intercorrelations was established for each analysis through Box's M with alpha levels >.001 (Pallant, 2013).

For the one-way between-groups ANCOVA, initial tests were run to make sure that assumptions of linearity, homogeneity of variances, homogeneity of regression slopes, and reliable measurement of the covariate were not violated.

**Scale 1: Perceived Intercultural Knowledge and Knowledgeable Behaviour**

*Step 1 – Mixed between-within Subjects ANOVA*

The mixed between-within subjects ANOVA showed no significant interaction between choice (DP Arts-students/DP Non-Arts-students) and time (pre-test/post-test) (Wilk's Lambda = 1.00, $F$ [1,63] = 0.07, $p$ = 0.80, partial eta squared = 0.00). There was a significant change over time with a moderate effect (indicated by partial eta squared)[52] (Wilk's Lambda = 0.93, $F$ [1,63] = 5.11, $p$ =

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[52] Regularly used and accepted effect size statistics to compare groups include Cohen's d (Cohen, 1988, 1992a, 1992b, 2016) and partial eta squared. In this study, partial eta squared is reported. Partial eta squared indicates a small effect size with values >.01, a medium effect size with values >.06, and a large effect size with values >.138 (Pallant, 2013: 218).

0.03, partial eta squared = 0.08) with both, DP Arts-students and DP Non-Arts-students, showing an increase on the scale *Perceived intercultural knowledge and knowledgeable behaviour* between the pre- and the post-test (see table 31). The main effect based on the two student groups (DP Arts-students/DP Non-Arts-students) was not significant ($F$ [1,63] = 0.14, $p$ = 0.71, partial eta squared = 0.00). (For full tables see appendix 8: Scale 1.)

*Table 31: Perceived intercultural knowledge and knowledgeable behaviour – Mean values of student groups in pre- and post-test*

|  | DP Arts-students | | | DP Non-Arts-students | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|
|  | n | M | SD | n | M | SD | n | M | SD |
| **Pre-test** | 28 | 4.06 | 0.71 | 37 | 4.10 | 0.75 | 65 | 4.08 | 0.73 |
| **Post-test** | 28 | 4.20 | 0.69 | 37 | 4.29 | 0.73 | 65 | 4.25 | 0.71 |

### *Step 2 – One-way between-groups ANCOVA*

When adjusting for pre-test scores on this scale, there was no significant difference between the two student groups in the post-test ($F$ [1,62] = 0.16, $p$ = 0.69, partial eta squared = 0.00). The relationship between pre- and post-test scores for the scale *Perceived intercultural knowledge and knowledgeable behaviour* was strong (partial eta squared = 0.46).

### Scale 2: Ethical Intercultural Values

### *Step 1 – Mixed between-within Subjects ANOVA*

In the scale *Ethical intercultural values,* the mixed between-within subjects ANOVA showed no significant interaction between DP Arts-course choice and time (Wilk's Lambda = 0.99, $F$ [1,63] = 0.95, $p$ = 0.33, partial eta squared = 0.15]. There was a significant change over time with a moderate effect (Wilk's Lambda = 0.91, $F$ [1,63] = 6.30, $p$ = 0.02, partial eta squared = 0.09) with student groups showing a decrease of means on the scale of *Ethical intercultural values* between the pre- and the post-test (see table 32). The main effect based on the two student groups was not significant ($F$ [1,63] = 1.18, $p$ = 0.28, partial eta squared = 0.02). (For full tables see appendix 8: Scale 2.)

*Table 32: Ethical intercultural values – Mean values of student groups in pre- and post-test*

| | DP Arts-students | | | DP Non-Arts-students | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|
| | n | M | SD | n | M | SD | n | M | SD |
| **Pre-test** | 28 | 4.88 | 0.75 | 37 | 4.57 | 0.94 | 65 | 4.71 | 0.87 |
| **Post-test** | 28 | 4.50 | 0.86 | 37 | 4.41 | 0.86 | 65 | 4.45 | 0.85 |

[Note: Unrelated to any impact or effect of students' DP Arts choices, it is interesting to note that 'session' (May-session versus November-session) had an effect on the results in the scale *Ethical intercultural values*. The mixed between-within subjects ANOVA (as described above) showed a significant interaction between session (May/November) and time (Wilk's Lambda = 0.92, $F$ [1,63] = 5.63, $p$ = 0.02, partial eta squared = 0.08). There was a significant change over time with a moderate effect (Wilk's Lambda = 0.92, $F$ [1,63] = 5.27, $p$ = 0.03, partial eta squared = 0.08) with May-session students showing a decrease and November-session students showing a slight increase on this scale between the pre- and the post-test (see table 33). The main effect based on the two student groups was not significant ($F$ [1,63] = 1.65, $p$ = 0.20, partial eta squared = 0.03). (For full tables see appendix 8: Scale 2.)

*Table 33: Ethical intercultural values – Mean values for session in pre- and post-test*

| | May-session | | | November-session | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|
| | n | M | SD | n | M | SD | n | M | SD |
| **Pre-test** | 35 | 4.71 | 0.84 | 30 | 4.70 | 0.93 | 65 | 4.71 | 0.87 |
| **Post-test** | 35 | 4.22 | 0.87 | 30 | 4.71 | 0.76 | 65 | 4.45 | 0.85 |

## *Step 2 – One-way between-groups ANCOVA*

Follow-up step 2 (one-way ANCOVA) could not be conducted as the post-test did not meet the assumption of reliability (Cronbach's alpha > 0.7).

## **Scale 3: Personal Intercultural Confidence and Identity**

### *Step 1 – Mixed between-within subjects ANOVA*

In the scale *Personal intercultural confidence and identity,* the mixed between-within subjects ANOVA showed no significant interaction between DP Arts choice and time (pre-test/post-test) (Wilk's Lambda = 1.00, $F$ [1,63] = 0.15, $p$ = 0.90, partial eta squared = 0.00). There was no

significant change over time (Wilk's Lambda = 0.99, $F$ [1,63] = 0.78, $p$ = 0.38, partial eta squared = 0.01), meaning that neither of the student groups showed a significant change of means on the scale of *Personal intercultural confidence and identity* between the pre- and the post-test (see table 34). The main effect based on the two groups (DP Arts-students/DP Non-Arts-students) was not significant ($F$ [1,63] = 1.38, $p$ = 0.24, partial eta squared = 0.02. (For full tables see appendix 8: Scale 3.)

*Table 34: Personal intercultural confidence and identity – Mean values of student groups in pre- and post-test*

| | DP Arts-students | | | DP Non-Arts-students | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|
| | n | M | SD | n | M | SD | n | M | SD |
| **Pre-test** | 28 | 4.63 | 0.72 | 37 | 4.79 | 0.53 | 65 | 4.72 | 0.62 |
| **Post-test** | 28 | 4.57 | 0.53 | 37 | 4.74 | 0.65 | 65 | 4.66 | 0.60 |

### *Step 2 – One-way between-groups ANCOVA*

Follow-up step 2 (one-way ANCOVA) could not be conducted as the assumption of equality of variance was not met. (Lavene's Test of Equality of Error of Variances: $p$ = 0.01 meaning $p$ < 0.05).

### Scale 4: Effective Intercultural Communication

### *Step 1 – Mixed between-within subjects ANOVA*

In the scale *Effective intercultural communication,* the mixed between-within subjects ANOVA showed no significant interaction between DP Arts choice and time (Wilk's Lambda = 0.94, $F$ [1,63] = 3.96, $p$ = 0.05, partial eta squared = 0.06). There was, however, a significant change over time with a moderate effect (Wilk's Lambda = 0.92, $F$ [1,63] = 5.21, $p$ = 0.03, partial eta squared = 0.08). The main effect based on the two student groups was not significant ($F$ [1,63] = 0.28, $p$ = 0.60, partial eta squared = 0.00). (For full tables see appendix 8: Scale 4.) Still, it is interesting to note the greater increase between DP Arts-students' pre- and post-test means compared to the minimal increase between pre- and post-test means of DP Non-Arts-students for this scale (see table 35).

| | DP Arts-students | | | DP Non-Arts-students | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|
| | n | M | SD | n | M | SD | n | M | SD |
| **Pre-test** | 28 | 3.73 | 0.91 | 37 | 3.85 | 1.08 | 65 | 3.80 | 1.00 |
| **Post-test** | 28 | 4.22 | 0.80 | 37 | 3.89 | 0.91 | 65 | 4.03 | 0.88 |

*Steps 2 – One-way between-groups ANCOVA*

When controlling for pre-test scores on this scale, there was a significant difference with a moderate effect between the two student groups in the post-test ($F$ [1,62] = 4.46, $p$ = 0.04, partial eta squared = 0.07). The relationship between pre- and post-test scores for this scale (*Effective intercultural communication*) was strong (partial eta squared = 0.28). (For full tables, see appendix 8: Scale 4.)

## Scale 5: Intercultural Open-mindedness

*Step 1 – Mixed between-within subjects ANOVA*

In the scale *Intercultural open-mindedness,* the mixed between-within subjects ANOVA showed no significant interaction between DP Arts choice and time (Wilk's Lambda = 0.99, $F$ [1,63] = 0.41, $p$ = 0.53, partial eta squared = 0.01). There was no significant change over time (Wilk's Lambda = 0.99, $F$ [1,63] = 0.53, $p$ = 0.47, partial eta squared = 0.01) meaning that neither of the student groups showed a change of means on the scale of *Intercultural open-mindedness* between the pre- and the post-test (see table 36). The main effect based on the two student groups was not significant ($F$ [1,63] = 0.40, $p$ = 0.53, partial eta squared = 0.01). (For full tables see appendix 8: Scale 5.)

Table 36: Intercultural open-mindedness – Mean values of student groups in pre- and post-test

| | DP Arts-students | | | DP Non-Arts-students | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|
| | n | M | SD | n | M | SD | n | M | SD |
| **Pre-test** | 28 | 4.69 | 0.70 | 37 | 4.83 | 0.63 | 65 | 4.77 | 0.66 |
| **Post-test** | 28 | 4.79 | 0.56 | 37 | 4.83 | 0.66 | 65 | 4.82 | 0.61 |

*Steps 2 – One-way between-groups ANCOVA*

When controlling/adjusting for pre-test scores on this scale, there was no significant difference between the two DP Arts choice student groups in the post-test ($F$ [1,62] = 0.06, $p$ = 0.80, partial eta squared = 0.00). The relationship between pre- and post-test scores for this scale (*Intercultural open-mindedness*) was strong (partial eta squared = 0.36).

[Note: Unrelated to any impact or effect of the DP Arts choice, it is interesting to note that when controlling for pre-test results, prior IB education (e.g. PYP or MYP) proved to have a positive impact on the increase of open-mindedness in students. There was a significant difference with moderate effect between the Prior IB (20 students) and the No prior IB group (45 students) ($F$ [1, 62] = 6.72, $p$ = 0.01, partial eta squared = 0.10). The relationship between pre- and post-test scores for this scale (*Intercultural open-mindedness*) was strong (partial eta squared = 0.37). (See table 37) (For full tables, see appendix 8: Scale 5.)

*Table 37: Intercultural open-mindedness – Mean values based on prior IB status in pre- and post-test*

|  | Prior IB students | | | No-Prior IB students | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|
|  | n | M | SD | n | M | SD | n | M | SD |
| **Pre-test** | 20 | 4.83 | 0.60 | 45 | 4.74 | 0.69 | 65 | 4.77 | 0.66 |
| **Post-test** | 20 | 5.07 | 0.42 | 45 | 4.70 | 0.64 | 65 | 4.82 | 0.61 |

## Scale 6: Intercultural Empathy

*Step 1 – Mixed between-within subjects ANOVA*

In the scale *Intercultural empathy,* the mixed between-within subjects ANOVA showed no significant interaction between DP Arts choice and time (Wilk's Lambda = 0.98, $F$ [1,63] = 1.28, $p$ = 0.26, partial eta squared = 0.02). There was no significant change over time (Wilk's Lambda = 1.00, $F$ [1,63] = 0.18, $p$ = 0.67, partial eta squared = 0.00) meaning that neither of the student groups showed a significant change of means on the scale of *Intercultural empathy* between the pre- and the post-test (see table 38). The main effect based on the two student groups was not significant ($F$ [1,63] = 0.24, $p$ = 0.63, partial eta squared = 0.00). (For full tables see appendix 8: Scale 6.)

Table 38: Intercultural empathy – Mean values of student groups in pre- and post-test

| | DP Arts-students | | | DP Non-Arts-students | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|
| | n | M | SD | n | M | SD | n | M | SD |
| **Pre-test** | 28 | 4.03 | 0.79 | 37 | 3.84 | 0.86 | 65 | 3.92 | 0.83 |
| **Post-test** | 28 | 3.96 | 0.74 | 37 | 3.99 | 0.69 | 65 | 3.98 | 0.70 |

## *Step 2 – One-way ANCOVA*

Follow-up step 2 (one-way ANCOVA) could not be conducted as the post-test did not meet the assumption of reliability (Cronbach's alpha > 0.7).

## Scale 7: Global Engagement and Social Responsibility

## *Step 1 – Mixed between-within subjects ANOVA*

The mixed between-within subjects ANOVA showed no significant interaction between DP Arts choice and time (Wilk's Lambda = 0.99, $F$ [1,63] = 0.62, $p$ = 0.43, partial eta squared = 0.01). There was a significant change over time with a large effect (Wilk's Lambda = 0.86, $F$ [1,63] = 10.28, $p$ = 0.00, partial eta squared = 0.14) with both student groups showing an increase on the scale *Global engagement and social responsibility* between the pre- and the post-test (see table 39). The main effect based on the two student groups was not significant ($F$ [1,63] = 0.00, $p$ = 0.99, partial eta squared = 0.00). (For full tables, see appendix 8: Scale 7.)

Table 39: Global engagement and social responsibility – Mean values of student groups in pre- and post-test

| | DP Arts-students | | | DP Non-Arts-students | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|
| | n | M | SD | n | M | SD | n | M | SD |
| **Pre-test** | 28 | 3.92 | 0.78 | 37 | 3.85 | 0.63 | 65 | 3.88 | 0.70 |
| **Post-test** | 28 | 4.11 | 0.59 | 37 | 4.18 | 0.72 | 65 | 4.15 | 0.67 |

## *Step 2 – One-way ANCOVA*

When controlling for pre-test scores on this scale, there was no significant difference between the DP Arts-students group and the DP Non-Arts-students group in the post-test ($F$ [1,62] = 0.47, $p$ = 0.49, partial eta squared = 0.01. The relationship between pre- and post-test scores for this scale

(*Global engagement and social responsibility*) was strong (partial eta squared = 0.31). (For full tables see appendix 8: Scale 7.)

## Summary

In this section, the analyses for the seven scales were explained. All scales were tested for reliability and analysed with a Mixed between-within subjects ANOVA also known as Split-plot ANOVA or SPANOVA. Where assumptions were met, a follow-up analysis using one-way between-groups ANCOVA was used to control for pre-test results in order to investigate any effect on the post-test results based on DP Arts choice. The results showed that in two scales, namely in the scales for *Perceived intercultural knowledge and knowledgeable behaviour* and *Global engagement and social responsibility* there was an increase in mean scores between pre- and post-test for all students, regardless of DP Arts choice. The difference in *Perceived intercultural knowledge* was significant with a moderate effect, and the difference in *Global engagement and social responsibility* was significant with a large effect. When controlling for pre-test scores, there was a significant difference with moderate effect on *Effective intercultural communication* based on DP Arts choice with DP Arts-students scoring higher in the post-test than DP Non-Arts-students. In the scale *Ethical intercultural values*, students – regardless of DP Arts choice – showed a decrease in pre- and post-test results.

Unrelated to DP Arts choice, two interesting findings included, that results in the scale *Ethical intercultural values* were impacted by session (May/November) with students in the November-session not showing the same decrease in mean scores as students in the May-session. Furthermore, there was a significant difference with a moderate effect on open-mindedness between students who had access to prior IB programmes compared to those who did not, with students with prior IB education showing an increase as opposed to those who did not have access to prior IB education.

# Chapter 6: Qualitative Findings from Open-ended Survey Questions

## Introduction

This chapter presents findings from the thematic analysis of student responses to the open-ended survey questions which related to the IBLPAs. The focus of the analysis was to identify themes in student responses which showed that in addition to the themes drawn from IB documents (e.g. IB, 2019a), 20 additional themes emerged from the student responses for seven LPAs (*knowledgeable, thinker, reflective, open-minded, caring, principled,* and *risk-taker*). The themes did not contradict the existing definition, but rather added additional dimensions and nuances to these respective LPA definitions.[53] In some cases the additional or emerging themes demonstrated that students understood or thought about a LPA in more practical terms which may have been preempted by the action-focussed question (*Can you share a situation in which **you acted** [add LPA, e.g. knowledgeable, caring, principled, open-minded] in a cross-cultural situation?*).

## Section 1: Themes Emerging from Student Responses Based on Learner Profile Attributes

In the following section, the themes that emerged from student responses are presented as sub-sections for each individual LPA. For each, the themes from IB documentation are addressed first, followed by any additional themes that have emerged from the student responses which are not represented in IB documentation. The header states the title of the theme, with the origin of the theme provided underneath as follows:

- *Theme from IB documentation*, or
- *Additional theme identified in student responses*.

For the following presentation of themes, it is also important to point out that student responses often fit comfortably within multiple themes, but that they are presented here as examples for only one theme at a time for the purpose of readability and clarity. However, where multiple themes

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[53] For an overview of themes identified from IB education (presented in chapter three) and of themes emerging from student responses (presented in chapter six) see appendix 9.

applied, this was considered in the descriptive analysis presented in chapter eight. Where necessary for the purposes of readability and understanding or in the case of minor spelling errors, student responses have been slightly amended. Any changes or deletions are indicated by square brackets, as follows: […]. Otherwise, they have been left as much as possible in their original format and errors have been indicated with [*sic*].

## Knowledgeable

Responses to this question[54] related to the LPA *knowledgeable.* In the analysis, examples of the demonstration of global and/or intercultural knowledge and understanding or evidence of being knowledgeable were identified.

- [K1] **Conceptual knowledge and understanding**
  *(Theme from IB documentation)*
  Demonstrations of conceptual knowledge and understanding were represented in almost all student responses with varying levels of conceptual complexity. Concepts included, but were not limited to:
    - Translation, and (effective) communication
    - Language, pronunciation and linguistic diversity
    - Intercultural habits and traditions of greetings and curtesy
    - Poverty and oppression
    - Stereotypes, racism, stigma, and respect
    - Intercultural understanding and awareness
    - Diverse cultures and traditions
    - Food and eating habits
    - Sports
    - Arts and artists
    - Faiths, beliefs, and tolerance
    - Hospitality
    - Immigration

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[54] For an overview of the qualitative questions see appendix 7.

- Perspective, views, and opinion
- Identity and personal growth
- Morals, freedom, choice
- Politics and economy
- Disciplinary knowledge across cultures

Examples of the concepts that were represented in student responses included:

o  bearing conceptual knowledge and understanding of cultures, traditions or politics in mind during conversations:

*"When I had in my mind some of the traditions and political situations when talking to some of my Ukrainian friends."*

o  discussing conceptual knowledge and understanding, including diverse cultures and traditions:

*"Once with my friends, who have a different culture than me, we talked about how works [sic] the marriage in our culture."*

o  communicating conceptual knowledge and understanding about poverty, power or privilege:

*"When I go to countries where poverty is big I always tell my younger sisters about the knowledge I have about those countries and try to make them understand some issues."*

- [K2] **Contextual knowledge**

*(Theme from IB documentation)*

Knowledge and understanding across a range of disciplines, languages and cultures was demonstrated across student responses in various ways. Examples included, but were not limited to:

o  disciplinary knowledge in diverse contexts:

*"It was in the math class in my high school, which is an international school. I felt and acted knowledgeable, because [I] have learn [sic] most of them in my own country before. I learned that [sic] how the education system, values and approach are different within the different cultures."*

o  topical knowledge, for example. about the work of governments or politics, within or through different contexts:

*"I acted knowledgeably in a cross-cultural situation when I was able to understand the differences between my government's way of working and the country where I live's [sic] government's way of working."*

    o   understanding of diverse systems or methods, for example education systems, through a different perspective, and deploying strategies to navigate someone else's system or personal experiences:

*"When speaking to one of [...] [my] Chinese friends, he was telling me [sic] his experience on the Chinese educational system. I do know some of the difficulties of that method so I focused the conversation around how did he overcome them [sic]."*

    o   comparing and contrasting cultural and religious traditions of two groups of people:

*"During a school trip to New Caledonia, I was able to elaborate on the differences between the cultural traditions of the native Kanak people and the European New Caledonians, including religious differences."*

- [K3] **Local and/or global knowledge**

*(Theme from IB documentation)*

Demonstrations of knowledge and understanding of or engagement with local and/or global issues which consequently lead to respectful responses, behaviours and conduct in cross-cultural situations were represented throughout the student responses, for example:

*"I do [M]odel [U]nited [N]ations so we get to travel to different countries and debate pressing world issues and resolutions to them. In certain conferences, [I] can speak freely and openly and knowledgeably if [I] have done enough research on the topic. I never speak out or debate about something that [I] do not know enough about."*

- [K4] **Understanding towards a peaceful world**

*(Theme from IB documentation)*

Examples or demonstrations of knowledge and understanding about bringing change "*towards a more peaceful world*" (IB, 2019a: 2) were represented in student responses and – in line with the question – focussed on inter-personal interactions and mediations within the students' direct contexts or area of influence.

An example of analysing behaviours and identifying forms of courtesy and respect towards more peaceful interactions between people was:

*"When I used to live in Japan, there were a lot of times where I had to use my knowledge to interact with people. It was hard since we had a language barrier but the people were so accommodating and I always tried my best to be kind and respectful. I learned that the Japanese culture is one that should be a model for the rest of the world since their people are extremely civil and courteous."*

An example of mediating and promoting peaceful interactions in one's area of influence included:

*"Because I went to an international school, it already shows that it is a school of many cultural backgrounds. There was this one incident where a group of people specifically went after this one person who was quite contrasting to them in terms of culture and his/her beliefs. It ended up in a very large disrespectful argument. I who have lived in many drastically different environments stepped in and acted on it. I used my knowledge for other cultures and helped work out a solution for both parties. […]"*

- [K5] **Understanding towards a sustainable world**

*(Theme from IB documentation)*

Examples that demonstrated an understanding towards a sustainable world and of the personal or human responsibility for the world and its resources (IB, 2019a) was not often represented in the responses for this question. One example, however, was:

*"While working on a project called Global Solutions project at a pre-collegiate program in Stanford University, I had to defend the point of view of [I]ndigenous people, and I knew that they  […] [valued the] natural resources of an island, so I had to propose a way in which we could find a balance between taking out the resources from an area, but at the same time respect [sic] the [I]ndigenous people's wishes."*

However, an understanding and responsibility towards a more sustainable world was implied in response to other questions, especially to the question on students' willingness to act, for example:

*"I try to be more resourceful and take better care of the Earth by recycling, reusing, and composting."*

*"Currently, I am advocating for increasing public transportation to decrease pollution in my city."*

From student responses, four additional themes were identified that added an additional dimension to the themes identified through IB documentation.

- [K6] **Personal truth of perceived global relevance**

  *(Additional theme identified in student responses)*

  Some student responses offered examples of their own/personal meaning or truth. This included examples of students' knowledge and understanding about their own culture or their own areas of expertise:

  > *"I explained the significance of food from my culture to a friend."*

  > *"During the history lesson – I could tell the other students about [events that] [...] happened in my country."*

  Students perceived or presented their (sometimes subjective, stereotypical, or undifferentiated) understanding as matters or issues of global relevance or significance or as 'universal truth'.

  > *"I'm originally from Pakistan, and in my culture it is normal to greet others with a handshake. I have been able to apply this to greetings with people from other countries such as Saudi Arabia and Bangladesh."*

- [K7] **Imparting or sharing knowledge**

  *(Additional theme identified in student responses)*

  This theme was assigned to examples that demonstrated the use of knowledge mainly to 'enlighten' others or to achieve a specific, and sometimes personal purpose, aim or goal.

  > *"I used my knowledge across cultures when trying to educate people of different cultures on where to swim and how to be safe at the beach."*

  > *"In some of the classes I had in the past, I shared my cultural knowledge for the benefit of my class including my teachers."*

  However, it also included examples of sharing cultural knowledge with others intended for better intercultural understanding.

  > *"I have helped some junior international students, who barely know the culture of New Zealand, to talk to their teachers. [...] the younger students don't know that talking openly and loudly using their own language in front of an English-speaking teacher is quite rude, so I would have to warn them to be more respectful [...] sometimes those students really do not know how to communicate what they want in English so they would have to ask their friends using their language, which [...] [may] appear rude to other people who don't know the language. [...] I helped the students to translate the best I can and encourage [sic] them to try harder using English."*

In some examples, 'acting knowledgeable in a cross-cultural situation' was conceived as imparting knowledge and understanding (or personal meaning) on others without any apparent interaction, dialogue or exchange of ideas which could further shape or mould a student's perceptions.

> *"When I was talking to my grandfather about Affirmative Action, he was confused on why [L]atino and black people needed monetary help. I explained to him the situations that are real in many peoples' lives and why Affirmative Action can be positive."*

In some examples, interactions were related to (perceived) expectations on how one would have to act in the chosen cross-cultural situation:

> *"When my* gran[d]pa *wanted to take a picture of a pretty house in Britain, I told him that British people would not like their house to be in a photo of someone they do not know."*

At other times examples suggested that the students thought they were holding some kind of superiority to others due to their insight or (perceived) knowledge and understanding.

> *"I supported certain statements about the background of one of my friend (who has a similar background to me) when explaining to a person with an American background who was claiming the opposite. It was important for me not because the background of my friend is similar to mine, but because I wanted the American person to be informed about other backgrounds as well."*

- [K8] **Relating to others through knowledge**
  *(Additional theme identified in student responses)*

  Examples in this theme demonstrated that students used their cultural and other knowledge to effectively engage, connect and interact with others to increase their own intercultural understanding through discussions and the exchange of ideas. Examples include:

> *"When discussing diverse religions with a women's group of faith in my town, I was able to express knowledge by showing the extent to which I recognize various religious practices. We discussed weddings, clothing, language, and traditions. […] We then travelled to a mosque where we were able to discuss Islam more in depth. It was an inspiring moment because we broke through much of the stigma that many people have, especially where I live, about various religions and their practices."*

Furthermore, this theme included responses in which students adapted their behaviour for example their use of language, to specific cultural settings in order to better connect with others or because they wanted to do what is right or appropriate:

*"I was conscious of the words that I used. Some things could seem racist to them that was [sic] not to me."*

*"Once in an international CAS trip, I found myself in a country who's [sic] Spanish was slightly different from the one I am used to. The knowledgeable aspect was when we had to communicate since I knew that for them understanding our variation of Spanish was much more difficult than it was for us to understand theirs. Knowing this I decided to deliberately change my speech to a neutral Spanish. As a result, they missed fewer details compared to those who shared the same Spanish variation I am used to. It was so successful in fact, that they struggled to identify where I was from […]"*

- [K9] **Mediating through/with knowledge**

  *(Additional theme identified in student responses)*

  Some examples had a very specific focus that was characterised by the use of knowledge and understanding in cross-cultural situations to collaborate with, mediate between and support others. In such examples, the student was considerate and appreciative of diverse perspective, and willing to step back in order to interact effectively:

  *"[…] my friends were arguing about their family situation. Some of my friends have the American culture, where their parents aren't very strict. But my friend of Asian parents grew up […] with very strict rules. My American friends couldn't understand why my Asian friend couldn't come out or join them, […] but I resolved the tensions by explaining her cultural situation."*

## Open-minded

The open-ended survey question relating to *open-mindedness* sought examples of students' self-perception of being open-minded in a cross-cultural situation. The analysis identified the type of understanding students may have of what it means to be *open-minded* based on three themes that were identified from IB documentation. All three themes were represented throughout the student responses. In addition, one theme [O4] (Willingness to adapt) was identified from the student responses.

- [O1] **Appreciation of heritage and identity**

  *(Theme from IB documentation)*

  For this theme, responses included examples of critical appreciation of, reflection on, and respect for diverse cultures, histories, traditions and identities:

  *"I acted openminded […] about another culture when I was in an art class. We had to make a project about anime-which is from the Japanese culture. Although it was not my*

*culture, but [i]t was something that [I] am really obsessed with and know a lot about. Thus I had a chance to express, and act open/minded bout [sic] that project"*

- [O2] **Curiosity for different perspectives and beliefs**

*(Theme from IB documentation)*

This theme was applied to examples of curiosity for, appreciation of, and respect for different perspectives, beliefs, values and experiences.

*"When people of other cultures are around me, I listen to them and accept their personal views and traditions instead of being disrespectful."*

*"As a liberal, I am open to all cultural differences, whether it'd be of [sic] beliefs, activity, and [sic] religious/spiritual practices, so long as [sic] they don't harm others."*

- [O3] **Grow from experience**

*(Theme from IB documentation)*

Examples of a willingness to grow from the experience.

*"I act openminded on a daily basis simply because every day I talk to people of different cultures. Every day I learn about differences between cultures. It shapes my cultural knowledge and helps it expand."*

*"During the time I spent in Israel, I learned a lot about the culture and I allowed it to expand my knowledge. […] and […] to build up my cultural knowledge."*

- [O4] **Willingness to adapt**

*(Additional theme identified in student responses)*

The theme included examples that demonstrated how students adapted to situations or transformed their own views, ways or behaviours as an outcome of the learning from or response to a situation. The examples were of practical or proactive nature:

*"I used to believe that only my cultural values are right until I came in contact with another culture and started realising that there are some differences that I appreciate and would like to change my way of being not openminded."*

*"When I study [sic] in a Canadian School, I have noticed that the […] class environment […] [is different to] my home country. People feel free to participate in class discussions and school organized a lot of activities. In my home country all we do in class is listen to the teachers. Therefore, I start [sic] to participate class discussion and joined a lot of different clubs and made a lot of new friends."*

**Communicator (Forms of Communication)**

This question related to the LPA *communicator*. All themes identified from IB documentation were represented in the responses with no additional themes emerging for this LPA. In addition, based on the given examples forms of communication were identified, which included (but are not limited to):

*Gestures and forms of expression*

- o Sign language and hand gestures (including pointing)
- o Body language
- o Non-verbal forms of politeness and respect (including greetings, bowing, etc.)
- o Mimicking and miming
- o Facial expressions (including the expression of emotions, eye contact, etc.)

*Alternative use of language*

- o Second language and/or alternative common language
- o Describing, explaining, elaborating, use of examples
- o Adjustments in pace, word choice
- o Change in or use of intonation, inflections and slang
- o Gestures and other non-verbal communication (e.g. cues) to support language

*Use of alternative tools*

- o Technology
- o Visuals and symbols (including scales)
- o Drawing
- o Theatre, drama, acting
- o Music (including singing)
- o Dancing
- o Games and sports (tactics)
- o Writing

*Other*

- o Help others or ask for help (e.g. walk with someone)
- o Action to prove my words
- o Time

- [C1] **Multilingual communication**

  *(Theme from IB documentation)*

  The first theme included responses or examples that demonstrated evidence of confident and/or creative use of multiple languages.

  > *"In the school residence I lived in we had [...] about 9 different nationalities. We used to communicate in different languages all the time, mixing Spanish and English and sometimes even key words like in Russian or Portuguese."*

  > *"Since I am bilingual, I tend to use my second language to express myself [...]."*

- [C2] **Multimodal communication**

  *(Theme from IB documentation)*

  The second theme was applied to responses or examples that demonstrated evidence of confident and/or creative use of multiple forms or modes of communication. Among others, examples included references to communicating through the Arts.

  > *"If there is a language barrier, I tend to try and make my explanations as visual as possible, as language is not needed through art. Perhaps sometimes through a musical piece, or again through the help of art, pictures, facial expressions and even through the use of online guidance (translator). One can only ever get stuck if one chooses to be. There are always other ways to get around a certain issue."*

- [C3] **Listening and appreciation**

  *(Theme from IB documentation)*

  The third theme was identified in examples that demonstrated evidence of active listening and recognising and accepting diverse perspectives, beliefs, values, cultures, or experiences.

  > *"When I went to Japan, I had to adjust my body language to be much more polite, positive and active to ensure Japanese people know I am actively listening to them."*

  > *"I always try to interact in cross-cultural situations with some formal knowledge as to not offend, but if I struggle with communicating with an individual I try to find some common ground and make sure to listen intently. [...]"*

- [C4] **Collaboration**

  *(Theme from IB documentation)*

  The fourth theme was identified in examples that evidenced effective collaboration and working together with others, including "*across cultures and disciplines*" (IB, 2019a: 2).

  > *"In Croatia when I went to the orphanage, the children spoke Croatian so I was showing them so[me] games."*

**Inquirer, Thinker, Knowledgeable (Critical Thinking)**

The question on *critical thinking* encompassed three LPAs, namely *inquirer*, *thinker,* and *reflective.* The themes that were identified in IB documentation were represented through student responses. In addition to themes from the documentation, two themes were identified for the LPA *thinker* and another two themes were identified for the LPA *reflective.*

*Inquirer*

The themes for *inquirer* encapsulated some of the ideals of holistic learning theories which an IB education promotes. The themes are focussed on inquiry skills and competencies.

- [I1] **Cultivate curiosity**

  *(Theme from IB documentation)*

  This theme was reflected in any example that evidenced the desire or devotion to know more, to find out about something or to understand a situation or event better.

  > *"[...] if someone tells me something about another culture I always want to confirm it by asking other people or researching."*

  > *"When evaluating the Sino-American trading war we discussed a lot. I shared different points of views and tried to stand on both sides to analyze possible causes and effects."*

- [I2] **Research skills**

  *(Theme from IB documentation)*

  This theme included examples evidencing the development or application of diverse inquiry or research skills. The theme was applied regardless of whether or not students mention the specific research skill that was employed. In the first example the student mentions the use of interviews and analysis in the research, but the second example is less specific about any particular research skills beyond *examine*.

  > *"In my IB world religions class, I used critical thinking to explore the culture of environmentalism in Islam for my IA. I interviewed many different Muslim individuals and analyzed their responses to my questions to inform my position."*

  > *"I compete in Model United Nations at my school, so in the past three years I have studied humanitarian interventions, education, and anti microbial [sic] resistance from the perspective of France, Ireland, and Egypt respectively. This requires a great deal of critical thinking as you must examine why a country or ethnic group feels a certain way about an issue."*

- [I3] **Learning skills**

  *(Theme from IB documentation)*

  This theme was evident in any examples that demonstrated the competencies or skills for independent or collaborative learning, as illustrated by this example of collaborative learning through discussion and consideration of diverse perspectives:

  > *"In our literature classes, we read works from many different time periods and cultures. As a result, there are words or ideas that do not immediately make sense to me or my classmates. We discuss them as a class to further understand the culture and, by extension, the piece of literature."*

- [I4] **Sustained inquiry and life-long learning**

  *(Theme from IB documentation)*

  This theme was applied to any responses that demonstrated a somewhat sustained inquiry or life-long learning about "*a range of local and global issues and ideas*" (IB, 2019a: 2).

  > *"I used specific ways of critical thinking with the different debates that started last year with the topic of legal or illegal abortion […] in Argentina. I never had an established idea on it, I was open-minded to both of them but differed on some thoughts in both of the ideas and gave my opinion and thoughts about them."*

  > *"All the time, when I read about events that occur in countries other than my own I analyse them according to the situation in which the country is in."*

*Thinker*

The themes for the LPA *thinker* focussed on types and examples of critical thinking about (personal, local and global) real-world issues. In addition to two themes identified from IB documentation, two additional themes ([T3] Broad thinking and [T4] Deep thinking) were identified in student responses. A fifth theme ([T5] Power and privilege) was later added in this category as it resonated with the data, although it was initially identified through IB documentation and research literature.

- [T1] **Critical thinking and creative problem-solving**

  *(Theme from IB documentation)*

  This theme described the use of specific thinking strategies in order to ideate and problem solve. From the responses, patterns around critical thinking emerged, for example, with regards to:

- o asking or responding to critical questions,

- o weighing pros and cons,

- o analysing and examining problems,

- o finding (effective) responses to problems or issues,

- o thinking about, (re-)considering, and/or questioning what one is told, or

- o consideration of appropriate interactions and responses in cross-cultural situations.

An example of asking critical questions, weighing pros and cons, examining problems and questioning what one is told, is evident in the following student comment:

> *"[…] I thought critically […] [about] Martin Luther. Luther was a known anti Semite and had published books that Hitler later used to justify his actions. My teacher told me that Martin Luther was believed to be sick during the time he wrote those books with dementia so he cannot be held accountable for his actions. I became more skeptical [sic] about Martin Luther and the information taught to me about politics."*

An example of analysing and examining problems, finding (effective) responses to problems or issues, and consideration of appropriate interactions and responses in cross-cultural situations:

> *"Once a year, our class goes on an obligatory camping trip. The groups contain people from different cultures and backgrounds. This meant that we all had to work together when hiking for long hours and carrying heavy packs. For example, some people in the group enjoy hiking and can go on for many kilometers [sic] before needing a break while others in the group were not as used to hiking and needed to break more often. We also had to try to stick together as a group so as not to get lost. This meant that the group needed to decide and compromise breaks and how long to walk and communicate that to the group so that everyone understood and make sure that the decision is for the good of the group. Another example is that we had to set up tents outside and many people/cultures think that it would have been inappropriate for the boys and the girls to share a tent so we had to separate and set up two tents so that everyone was respected and comfortable. Even though it was more work, it was worth it so that everyone could feel safe and respected."*

- • [T2] **Informed and ethical decision-making**

  *(Theme from IB documentation)*

  This theme was captured in examples that demonstrated critical thinking or inquiry towards informed, ethical and accountable responses or behaviours (IB, 2019a). These characteristics were, for example, displayed by a sense of fairness, justice, consideration and respect for the dignity and rights of other people*:*

*"I know in certain cultures that a man shouldn't touch a woman […] I subconsciously make sure that the girls/women [that are] apart [sic] of that culture are okay and not being touched when they shouldn't."*

- [T3] **Broad thinking**

*(Additional theme identified in student responses)*

This theme included responses with a breadth of thinking that demonstrated 'life-wide' learning (IB, 2019a). Examples included those responses that demonstrated thinking and engagement about personal, local or global issues or matters in wider and complex contexts of cultures, topics or disciplines. Topics were understood beyond obvious and preconceived perceptions or ideas connecting the theme to the area of inter-connectedness in holistic education approaches (Johnson, 2019).

> *"Currently, the news has a lot of stories regarding terrorism, and each story is horrible. However, when the media critizes specific religions in [sic] whole as being to blame for the terror attacks, I often take a step back and question how accurate is what [sic] the media is saying. I especially do this more, after taking a World Religions course […], as it gave me some background information on different religions and allows me to feel more empathy for the different religions.*

- [T4] **Deep thinking**

*(Additional theme identified in student responses)*

Examples were included in this theme if they provided evidence that thoughts, ideas or arguments were backed up by evidence, reasoning or justification that was rooted in effective research and inquiry.

> *"When working on a presentation I had to take many cultural aspects into consideration to not offend anyone. It is always a hard job to determine right from wrong, but by using internet sources as well as people it allowed me to easily maneuver [sic] past the controversial problems I could have been presented with."*

Responses also included examples where students discussed, argued or counterargued a topic, for example a local or global issue, political situation, in an informed and knowledgeable manner.

> *"[…] I analyzed the perspectives of British and Egyptian views on a 19th century event, known as the Urabi Revolt, that ended with British occupation of Egypt in the 1880s. What I learned about the perspectives was that each side had their reasons for engaging in the revolt […] this has taught me […] that not only were there several ways to view an event, they can all be equally just, though to what extent is a matter of debate."*

- [T5] **Power and privilege**

   *(Additional theme identified from IB documentation and research)*

   This theme was added to identify examples that evidenced any critical consideration about power and privilege.

   > *"[...] questions [...] required my critical thinking abilities in assessing matters such as multinationals. A MNC is a business which has two or more operations in a foreign country. Often their performance is unethical but it also has benefits to the host country. I had to discuss these ideas in a case study which involved location decisions [...] between China and Germany."*

*Reflective*

For this LPA the themes linked well to aspects of the holistic learning theory, specifically to intrapersonal reflections and reflections on intrapersonal and interpersonal connectedness (Johnson, 2019).

- [R1] **Consideration of inter-connectedness**

   *(Theme from IB documentation)*

   Examples within this theme evidenced reflections or consideration of how one's own thoughts, beliefs and experiences connect to those of others, to wider contexts and to complex systems or relationships (IB, 2019a).

   > *"I have had a few situations in which I wasn't informed enough to engage in the topic, but I used connections to my own background and culture to make sense of it and be able to join the discussion."*

- [R2] **Personal development**

   *(Theme from IB documentation)*

   This theme referred to reflections on how to nurture and develop oneself by understanding one's own strengths and limitations (IB, 2019a).

   > *"[...] When my dad got a job offer in Argentina, I was offered the choice to stay [in Brazil] or to move. I was unsure at first about leaving [sic] back to my native country because I was unacquainted with the culture there and was scared that I wouldn't fit in because I had left when I was so little. I used a lot of critical thinking to analyze both sides of the situation and ended up deciding that it would be better suited [sic] for me to go with my family to my home-country even though I felt kind of like an outsider. I saw that it was a great situation to grow and adapt and it would also help me reconnect with my roots and*

*my family. After finally doing so and moving to Argentina, I realized that the situation had taught me a lot about perseverance and that now it was the best option for me. It also taught me that being in new cultures, no matter what age or country, would be good for me even if I didn't know anyone living there. [...]"*

- [R3] **Perspective-taking**

*(Additional theme identified in student responses)*

This theme captured examples that evidenced a student's ability to reflect on, evaluate and consider pros and cons of diverse perspectives, views, opinions, beliefs, values, cultures, identities, experiences of self and others (IB, 2019a) to form their own views, opinions and understanding of situations and events.

> *"[...] I took a World Religions class where we learned the true facts about each religion and the culture's way of life through that religion. That class took a lot of critical thinking because you had to take away the media's perception of religion and read what the religion is actually about and then decide for yourself what you think it is. [...]"*

- [R4] **Flexibility**

*(Additional theme identified in student responses)*

This theme captured examples that evidenced a type of approach or behaviours in cross-cultural situations that was reflective and responsive to the verbal, non-verbal and behavioural messages of others. Examples evidenced observation and consideration of intercultural situations in order to respond and interact more effectively and respectfully to and with others.

> *"I am naturally a very tolerant and liberal person who treats people of all ethnicities and cultures in the same welcoming manner. Yet there are times in which I come in contact with a person whose culture I am not fully familiar with. In those situations, I know I must think through everything I want to say to that person, though I am confident I won't even think of doing any offensive act towards the person of that culture."*

> *"I was once invited to have dinner in Paris with my best friends extended family (who happens to be [F]rench). I had to analyze the situation to figure out the cultural norms at the dinner table. I also had to think of similar past experiences to determine what to do."*

**Caring and Principled**

Question five focussed on the LPAs *caring* [E] and *principled* [P], meaning any examples of empathetic or ethical thinking, behaving or acting. In addition to the themes identified through IB documentation, four themes were identified in student responses which are labelled with [EP].

*Caring*

- [E1] **Compassion**

  *(Theme from IB documentation)*

  This theme focussed on examples where students demonstrated "empathy, compassion and respect" which were manifested through being emotionally affected by a political or social situation as demonstrated in example [1][55], but also through showing empathy and compassion for people in need or less fortunate [2].

  > [1] *"An example where I was caring toward another culture would be for the ongoing issue of genocide in Burma. I found myself very sad and even attending a protest in downtown Regina about it around this time last year."*

  > [2] *"I was once in a shelter for homeless chi[l]dren […] I ended up spending quite a lot of my time with this one South American girl; her parents […] unfortunately both died […] and she was left homeless at the age of 8. As I was leaving that day, she said that it was really fun to hang out and asked me to please not go. I decided I would come back every day for a week, since it was break anyway, and I still keep touch with her today."*

- [E2] **Service**

  *(Theme from IB documentation)*

  Examples in this theme demonstrated a desire or enthusiasm to volunteer or to serve and support others, for example:

  > *"Last year I went on a trip to Tandil in which we helped many schools to learn some [E] nglish and basic hyg[i]ene. We also helped a special needs school to learn the song head shoulder[s,] [k]nees and toes. This was very fun for us as for them [sic] we had a great time."*

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[55] From this point onwards, reference to specific examples is made by using square brackets and the number of the specific example. For example, when a specific point or feature is demonstrated in example 1, this reference will be indicated by a [1] after the relevant point or feature is stated.

- [E3] **Impact**

    *(Theme from IB documentation)*

    This theme described situations in which students act to bring change and improvement for others or for the world. Student responses reflected this in very specific actions to improve specific, sometimes challenging, situations for others, for example:

    > *"When I was travelling in Korea alone, I saw foreign people arguing with the bus driver to take them to Namsan tower. I calmly explained to the bus driver (who couldn't speak English at all) the situation [sic], and solved the problem with everyone happy [sic]."*

    > *"I remember that one time, I was walking in [sic] the road, and I saw [...] a very old lady walking to throw the trash, and I volunteered to take the trash for her so that she did not have to walk anymore. Later on, I helped her walk up the stairs of her apartment."*

*Principled*

Student responses showed that the themes for this LPA are very closely connected, rather than distinct features of the attribute, as for example in the attribute *caring*. Here, themes often occurred together in examples, meaning that a student that demonstrated respect for the dignity and rights of others would behave fairly and justly towards that person and call out any problems with integrity and honesty. The themes were not as distinctly separable as in other LPAs.

- [P1] **Integrity and honesty**

    *(Theme from IB documentation)*

    Responses in this theme demonstrated acts and behaviours of integrity and honesty:

    > *"[...] after my country's most recent election there was a lot of joking around about how bad the result was and how stupid my country's system is. Even though I agreed about the election, I explained the system so that they could better understand that that [sic] is the way [...] it works and the outcome is because [sic] of the people, not the system."*

    > *"Even in situations which are not cultural, I will still point out if someone has made a racist/offensive remark. I will not preach, yet I will point out what [...] sort of message they are sending with that remark, that message being that they are narrow minded [...]"*

- [P2] **Fairness and justice**

    *(Theme from IB documentation)*

    This theme was applied to examples that demonstrated acts and behaviours of fairness and justice, such as acting on behalf of others, standing up for others, defending those who are treated unfairly, mediating between parties, etc.

*"Yes, every time somebody gets discriminated for what [sic] they are, I stand up for them [...]"*

- [P3] **Respect for dignity and rights**

*(Theme from IB documentation)*

This theme included responses that demonstrated respect for the dignity and rights of others.

*"There was a girl in my group project who could not speak any [E]nglish and everyone was getting mad at her and she cried. I took her to the bathroom and helped her out and did my best to explain what was going on and then became a sort of mediator between her and the member[s] of my group."*

- [P4] **Responsibility**

*(Theme from IB documentation)*

This theme did not occur more than once in response to this question. However, the theme was represented in responses to other questions, for example in those provided for *critical thinking* or *willingness to act (risk-taker).* In examples for this theme, students demonstrated that they were willing to take responsibility in difficult situations and for problems. Students also displayed a sense of ownership for their thoughts, convictions, emotions and actions and their respective outcomes or effects.

*"I went to the isle of Lesbos in Greece during the refugee boom two years ago. I was helping NGO's like UNHCR and Doctors without Boarders [sic] in retrieving the refugees and safely transporting them to the shore, where food and shelter were provided. It wasn't easy, as I had to seem confident and strong and uplifting where in fact I was just depressed and shook. It felt amazing yet hard, and made me realise several things."*

- [EP5] **Inclusiveness**

*(Additional themes identified in student responses)*

This theme links well to theme [E1] and adds a practical dimension to what it means to some students to be *caring*. As such, the theme focussed on examples where students were inclusive, acted with kindness or were hospitable to others.

*"When someone came to the school being new and from another country, I included them as I knew what it was like because I had to go through it at one stage."*

*"I can remember that one time a new player came to my team and she was English so no one could really speak to her ex[c]ept for me. [...] I took her with me and we would play together and since she didn't have [t]he same level as the other players, I would teach her certain moves."*

- [EP6] **Non-judgemental sensitivity**

  *(Additional themes identified in student responses)*

  This theme related to examples where students were particularly sensitive in or towards cross-cultural situations. They made it a point not to pass judgements on others, but instead acted sensitively and appropriately in a cross-cultural situation, for example with reference to another culture's customs. Examples also included mediating in situations for others to better understand and accept cultural, racial, gender and other differences or different perspectives and points of view.

  > *"I make it a point to not judge anybody and to be respectful to what they hold important. If someone tells me a certain piece of information they give value to, I strive to understand and remember."*

- [EP7] **Relating and connecting**

  This theme is closely connected to the holistic ideas around *interpersonal* understanding (Johnson, 2019) specifically by connecting to and with others through gestures of compassion and empathy [1], such as listening, talking or relating to others, or by finding common ground [2].

  > [1] *"Since I attend an international school, I have many friends from different countries. When people have turmoil in their countries or are upset about a certain cultural issue that their country faces, I let them vent to me. I ask questions about the topic so that they have somebody to debate with who can help them completely grasp the issue and where they stand on it. […]"*

  > [2] *"When I was on a volleyball tournament in Sarajevo, I went to dinner with girls from the other clubs who were vegetarian and even thought I did not know any of them and we were all from different cultures, I decided to take initiative and make the girls bond by initiating the conversations. It was quite easy for me to initiate a conversation with girls from different cultures because I am used to being exposed to a vast [range] of different cultures. From this experience, I learned how to communicate with different cultures and how there is always something everyone can relate to and in this case it was being vegetarian."*

- [EP8] **Concern and regard**

  This theme comprised examples that demonstrated acts of concern for and appreciation of others' culture [1], choices, principles, habits [2] and perspectives [3].

[1] *"[W]hen I had taken careful time to make gifts for each of my ethnically diverse friends. Some have religious restrictions others find certain gifts offensive, so I took careful note of what is okay in each culture."*

[2] *"One of my friends is Muslim and they were struggle [sic] during [R]amadan as we had dance all day and [they] couldn't eat. So I helped motivate [them] through out [sic] the day and helped [them] get through despite [...] being tired and hungry."*

[3] *"During our Global Solutions Project we were all contributing to the island design. However, a student from Mongolia was kind of shy and so was afraid to share their ideas. Therefore I decided to approach her after the meeting and ask her if she was okay and encourage her to share her ideas with us and that no one was going to judge her. The next meeting she shared all her interesting ideas and so she felt much better and confident with the group."*

- [EP9] **Vulnerability and identity**

This theme includes making oneself vulnerable by sharing about one's feelings or sensitive topics regarding one's own background and culture in a considerate manner [1][2]. The theme also includes an awareness of one's own identity and sharing or demonstrating care about one's own background and identity, especially when it is a marginalised one, in order to engage with others in a cross-cultural situation [2][3]. Examples in this theme evidence the ability to step out of one's comfort-zone and to manage, respect, accept or handle other's opinion about or reaction to oneself in a mature and effective manner [1][2][3].

[1] *"One time I was caring or principled in a cross-cultural situation was [sic] when I visited my [friends] from another country and we were having a discussion about a theme that landed on us talking about our cultures, therefore, I had[...] to be principled on what I said and be [sic] neutral and talk [about] my culture as of [sic] right or wrong and not defend it only because they were from my country."*

[2] *"A few of my friends are closeted LGBT+ people, meaning they are an LGBT+ person, but they cannot publicly say so because of families or friends. Although I am open wit[h] my sexuality, my friends sometimes talk about what it's like being closeted and they ask me about my experience, I avoid giving advice that involves pressuring them to come out because I know [that no] matter how accepting the people are perceived to be, I have to understand that everyone is ready [...] in their own time. And there are more direct things to think about such as the risk of being public with one's sexuality."*

[3] *"I was openminded about another culture when I became friends with someone who openly criticizes my religion."*

**Risk-taker (Willingness to Act)**

The question on *willingness to act* related to the LPA *risk-taker*. In addition to the four themes from IB documentation, five additional themes were identified from the student responses who added a practical dimension to the more conceptual or theoretical themes identified in IB documentation.

- [A1] **Courage and determination**

  *(Theme from IB documentation)*

  Examples in this theme demonstrated evidence of a courageous and determined approach to a challenge or situation where the outcomes are unsure and possibly intimidating.

  > *"[…] The Charlottesville incident took me by surprise; both in terms of the actual incident and the reaction to it. […] As made very clear by the mainstream media, the Charlottesville marchers also protested against black rights. However, [the protesters'] central targets were Jews. This, of course, matters not to the media. I don't think a single media giant even mentioned the presence of anti-Semitism in that protest. While it is important to condemn the racism there, it is also very much important to remind people about anti-Semitism. […] I have actually directly contacted local news, as well as told people who I feel acted this way […]"*

  > *"Once I was on my way home with my friends. One of my friends was from Saudi Arabia. It was around midnight and we were walking on the sidewalk and acted normally […] Then, a police car stopped next to us. The police men only asked my friend from Saudi Arabia for his ID and they seemed like they didn't care about us Germans. And I asked the police men why he only asked my Saudi Arabian friend for his ID and he answered: Because you don't look like criminals, he does. I could not believe he said that. But my friend from Saudi Arabia said that that is normal and that he got used to it."*

- [A2] **Innovation**

  *(Theme from IB documentation)*

  This theme included examples in which students demonstrated how they would take a proactively new or innovative approach or direction, for example to resolve environmental or other issues, to organise social events, or to direct volunteer activities.

  > *"I run an environmental group in my city that helped unanimously pass a city climate change recovery resolution to help us be more sustainable and fight climate change. We are still partnered with the city and are helping design their climate recovery plan for going forward."*

  > *"I created a water filtration plan for third world countries with contaminated water."*

- [A3] **Resourcefulness and resilience**

*(Theme from IB documentation)*

In examples for this theme students demonstrated that they were *"[...] resourceful and resilient in the face of challenges and change*" (IB, 2019a: 4), specifically through negotiation, effective collaboration, and imaginative use of (sometimes limited) available resources.

> *"I took action by organizing a clothes drive in my school which aimed to promote the hazards of lack of material recycling."*

> *"A global issue I am greatly passionate about is environmental conservation and green infrastructure. The way I take action is public speaking on outreach for spreading awareness of green infrastructure. And starting a project to install green infrastructure onto my high school's campus."*

> *"The community service club I help lead has an annual Dance-A-Thon. Last year, we decided to help a local organization which focused on helping the Hispanic community within the city. We planned the dance, gathered donations, and eventually raised thousands in order to enhance the facility and their learning materials, which helps undocumented immigrants work toward obtaining US citizenship."*

- [A4] **Problem-solving**

*(Theme from IB documentation)*

Examples that fit with this theme demonstrated that students could "*see beyond immediate situations and boundaries*" (IB, 2019a: 2) and would work towards resolving issues or problems by looking at these from different perspectives

> *"In Singapore, I started up an organisation called Myanmar A New Dawn. It was a service which helps fight poverty in Myanmar."*

- [A5] **Participate**

*(Additional theme identified in student responses)*

This theme was applied to examples in which students took action by participating in organised events or in existing activities or clubs (e.g. inside/outside of school)

> *"I participated in International Women's Day by marching, as well as taking many photos to spread the message in social media."*

- [A6] **Take a stand**

  *(Additional theme identified in student responses)*

  This theme was applied to examples that demonstrated how students would stand up for something (e.g. others, a conviction, a situation, the environment, self), face bullies or stop racist comments or remarks.

  > *"I do multiple speech competitions and [I] try to base it on an issue [I] could really get passionate about. I once talked about [S]yrian refugees and tried to explain what they are going through and even though the audience [I] was speaking to wasn't in Syria. I tried to describe how people anywhere should not be treated [...] how they are being treated and need immediate support."*

- [A7] **Reason, de-escalate, mediate**

  *(Additional theme identified in student responses)*

  In examples with this theme, students took action by reasoning with others in the light of misconceptions and educated others on a situation. They also mediated between people, stopped people from arguing, or de-escalated situations.

  > *"When people are saying things to intentionally irritate a certain person from any given culture, I try to settle the parties involved."*

  > *"Yes, there was a situation where friends of mine had issues with a family from another country seeing that talking back towards an adult is very disrespectful, this made me both have to intervene and diffuse everything but only in a verbal matter."*

- [A8] **Help and support people**

  *(Additional theme identified in student responses)*

  Examples that were allocated to this theme demonstrated how students help others, including hosting, volunteering and supporting those in need, as well as supporting others to integrate into the host culture.

  > *"My school organized (via the NHS) trips to the local orphanage which is a non-native culture for me. We helped take care of the little children (ages 1-3) by playing around with them for a while on the weekends. This was difficult for me because the children were so young that they could not understand me. Nevertheless, we found ways to communicate and have fun together."*

- [A9] **Support a cause**

  In examples for this theme, students demonstrated mindfulness towards and advocacy for or proactively supported a local or global issue, campaign or an environmental issue. These

examples showed evidence of being concerned with changing and improving difficult situations in local and global contexts.

> *"[…] I […] helped raise awareness about a cause which is very close to me. Anti-trafficking, through dance. It made my country more aware as it was streamed on television and schools slowly included assemblies on this topic. […]"*

> *"In my Spanish class this year we did a fundraiser […]. We raised over 500 dollars for kids who have been hit by the economic crisis and dictatorship in Venezuela. […]"*

> *"Currently, I am advocating for increasing public transportation to decrease pollution in my city."*

## Balanced

- [B1] **Life-balance**

*(Theme from IB documentation)*

Examples in this theme evidenced balanced behaviours and actions, for example through diverse subject choices, but also through a balance of views and behaviours.

> *"[…] I understand my own expectation and limitations in life […] I analyze situations in my everyday life […] and I apply different skills and knowledge towards intended outcomes. This was and is something challenging mainly because you need to show all you[r] knowledge from you[r] [life] experiences […]."*

- [B2] **Interdependence with people**

*(Theme from IB documentation)*

This theme was captured in examples that demonstrated students' understanding of the interconnectedness between people.

> *"As mentioned in the previous question, I stood up for people that did not have the courage to face the situation. I cared about their position and situation. It was really hard since I knew my actions would start a fight but I could not keep this to myself. I also did it cause [sic] I knew that if the situation was the other way round, someone would stand up for me and stop comments or jokes that could hurt me or offend my culture. I believe that we receive what we give so I acted to help society and I know one day society will give it back to me. Caring for others is free, making someone smile or feel bad is free as well. Why not use this situation and take advantage from it in order to make people smile."*

- [B3] **Interconnectedness with the world**

*(Theme from IB documentation)*

This theme was evidenced in examples that demonstrated students understanding of their wider connectedness to the world and the environment.

*"This past year, I have been part of my school's Eco Club. We have taken action to reduce the amount of waste produced by the school and raise awareness about the benefits of living a lifestyle that creates less waste. While values related to sustainability, nature, and the environment differ from culture to culture, we determined that climate change is something that affects everyone. As a result, we are moving towards banning plastic water bottles and have implemented policies such as Bring Your Own Plate to big school events that serve food."*

*"During a chemistry class [...] we were discussing about how maybe in the future there might some more technologically advances cars. I immediately entered the conversation expressing my concern for global w[a]rming and how it might worsen. I also expressed my concern for the air that humans breath everyday, since it is full of pollution, and may cause some diseases to the lungs."*

## Summary

This chapter has presented students' understanding of the LPAs and introduced the themes that emerged from student responses. In the analysis it became evident that the themes identified in IB documentation, although generally well represented, did not fully capture the students' understanding of all LPAs. As a result, 20 additional themes emerged across eight of the attributes. These themes offer an indication of the understanding and interpretations that students hold in relation to each of the attributes and generally add a more practical and application-based dimension to the theoretical understanding provided by the IB.

# Chapter 7: Response Categories

## Introduction

The analysis of student responses to the open-ended questions showed that for each attribute, responses represented categories that were characterised by different qualities, attitudes and complexity. For example, communication could happen through a handshake that is typical for 'my' culture or gesturing in a shop to get a salesperson to understand the type of bread one wants to buy, as opposed to complex (conceptual) communication with an audience about a global issue in a theatre play or in a piece of music. In other words, the categories allow for the classification of examples with shared features and in this way offer a common typology that is indicative of the allocated examples. This chapter will introduce the response categories beginning with those that are most representative of characteristics of IM towards those that are rejecting the notion of IM and, at the end, those that could not be allocated. Categories differed from themes in that themes tended to be demonstrated across examples in different categories, while categories were a common representation or cluster of specific types of responses.[56]

## Section 1: Response Categories

In this section each category will first be introduced and described in general, and then exemplified through specific examples for each individual LPA.

**Category 5: Transcendental and Transformational**

> **Characteristics:**
> - transcendental and transformational
> - adapting and refining one's views and behaviours
> - navigating complexities of circumstances and interactions
> - understanding and appreciating interdependence

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[56] For an overview and a demonstration of the difference between categories and themes along with examples of student responses for the same LPA across categories see appendix 10.

This category is characterised by examples of students who were engaging with holistic approaches or perspectives to cross-cultural situations. Students were able to draw connections and recognised their interconnectedness with others and the world. Furthermore, students demonstrated a willingness to engage with difficult circumstances, complex situations and diverse contexts. The figure below illustrates how in this category, students may understand themselves as interconnected with the world and with others and their ability to identify similarities, differences, and shared areas of influence.
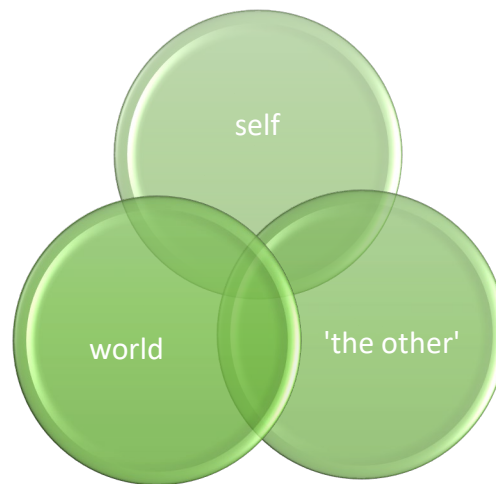


*Figure 14: Illustration of the category associated with transcendental and transformational attitudes and behaviours*

Examples in this category showed that students were increasingly attuned to the world around them. They understood the complexity of life and the systems they operate within, and were confident about engaging with them. In other words, examples showed that students can draw connections, recognise and navigate the complexity of situations and/or consider themselves as part of a bigger picture *(global connectedness)*.

> *"[…] I have volunteered many times at the soup kitchen […] and volunteered my time at a […] [M]iddle [S]chool [for deprived students]. Both of those experiences deepened my understanding of how privileged I am. […] At the [M]iddle [S]chool, most of the children came from poor financial situations that resulted in some behavior [sic] issues in how they had some trouble respecting others and issues in their education in [sic] their problem-solving skills with math[s]. By working with the children with their math[s] I had learned a lot about their lives with their parents working a lot of the time […] [which] made me feel guilty of my privileges in being raised in a middle-class background enticing me to keep coming back and serving my time there to give where help was needed. I also*

*encountered this when tutoring a Somali family and helping their high school students with their homework [...] Even though my contributes were not [on] a global scale, it [sic] was still global issues making me more understanding of how real these issues are in today's society."*

Diversity was not seen or considered as a threat but as a piece to the puzzle that is the world. In this category, the world certainly no longer evolved around them or their opinions and views but was considered a learning space into which students were positioning themselves. This was expressed in statements, for example from this student, who went on an exchange to another country to learn about language and culture:

*"[...] I knew what to expect and really wanted to immerse myself in the culture so I wasn't hesitant to participate and learn. [...]"*

On an interpersonal level, students were increasingly attuned to others. They sought to understand others from their perspective and to interact or connect on someone else's terms to live in harmony and respect with them. Students effectively operated within the complexity of interrelationships and appreciated and thrived in and with diversity and difference. This was demonstrated in the example of a student who (in an intercultural group-setting) understood the cultural difference of another student and sought to interact effectively with that student by appreciating and respecting the perspectives and terms of conduct:

*"[...] At first, I wasn't sure if I would make [...] the Pakistani girl, uncomfortable by without knowing her openly talk [sic] to her. This was because I knew that in the country where she comes from, being too open when talking to a stranger of the opposite sex is frowned upon. [...] I was cautious because I didn't want anyone to get offended or anything similar. [...] Luckily after talking with everyone at the table for some time, I noticed [...] she addressed anyone without any problem. [...] After that, we continued talking and I respectfully ask [sic] if there was anything that I should be aware of that might make her uncomfortable without me knowing, and she said she didn't think there would be. [...] With this, I learned that knowing about other cultures [sic] basic etiquette is very useful since it can avoid uncomfortable situations or upsetting someone. [...]"*

Students further demonstrated an adaptability and the ability to adjust and transform their attitudes and behaviours in a constructive fashion depending on the demands of cross-cultural situations. An example for adapting perspectives were the reflections of a student who was introduced through friends to a Syrian refugee. The student reflected on how the encounter changed his/her way of thinking about cultural issues:

*"[…] This has changed my perspective on a lot of things because that was the first time that I had a chance to talk to a refugee and listen to him about their perspective because up to that point, all I heard about the refugee crises was from the media. After that I could look at it in a completely new way."*

In this category students also demonstrated a form of intrapersonal maturity that was characterised by:

- self-respect,

- an understanding of one's own value and self-worth,

- being in tune or in harmony with oneself, and

- a type of confidence that is not self-seeking but able to transcend the own self in the eye of complexity, diversity and difference.

It allowed students to relate to others or situations and to accept and unlock new experiences, while sustaining, transcending and developing oneself. In this sense, every encounter allowed students to further shape and form themselves to who they are as part of this bigger picture.

*"[…] every time my parents told me we were moving to another country, I used to feel sad, because I had to [leave] my friends, school and sometimes family. But growing up, I changed my mentality, and started thinking in another way, I looked at it as a new opportunity to meet new friends, know a new culture and get out of my comfort zone. Now I consider myself very open minded and to have [sic] enough experience to be able to adapt to any culture."*

## *Knowledgeable*

> **Characteristics:**
> - appreciation of interconnectedness
> - understanding of complexity of situations
> - refined, nuanced, and complex conceptual knowledge and understanding
> - transcending opinions and adapting perspectives
> - using or applying knowledge outside of one's own cultural paradigm

In the LPA *knowledgeable*, category 5 (transcendental and transformational) carried characteristics relating to the use of intercultural knowledge in cross-cultural situations. Such characteristics included an appreciation of the interconnectedness with others, but also of a type of agility and adaptability in the application of knowledge (see general description of category). This means that the demonstrated knowledge was not comprised of static facts, but adapted, moulded and shaped throughout complex situations and in diverse encounters. An example of the type of response that demonstrated an understanding of the complexity of situations and a refined, nuanced, and complex conceptual knowledge and understanding along with the type of adaptability needed in the light of diversity was described by a student ambassador who welcomed new students to an international school:

> *"[...] This situation was at first challenging because I was meeting these people for the first time so I had to quickly learn where they were from and try to help them find ways to adapt to the culture. The easy thing about this was that I had also been through that situation of being new and trying to adapt to a new culture, so I could share experience and tips to [sic] these people, no matter where they were from. Thankfully, my friends were also all from different cultures, so I quickly learned how to incorporate [sic] the new kids to the country but also to a culturally diverse community. This situation helped me understand more about cultural adaptation and how there are certain countries that have more differences between each other than between others [sic]. This allowed me to see why adaptation to a new country was so hard for some people and so easy for others. The integration of Korean kids was usually hard because they held a lot of different customs with the Brazilians, but for Latin American students, it was much easier and they had to only adjust minor things to adapt."*

Another student demonstrated the transcending of opinions and adaptation of perspectives but also a willingness to shape and reshape knowledge and understanding in the light of cross-cultural encounters. The student reflects on an encounter with another student from a different culture during an overseas school trip:

> *"[...] This conversation was incredible. He knew a lot of data about my religion and country and also I knew a lot of information about his country. As I said before this student is from Iran so I discuss [sic] all the cultural attributes of his country and the religion [sic] aspects. We talked about [...] points of his life for example [...] about his religion in a very detailed aspect [sic]. He is [M]uslim and it was very interesting [to] have a conversation with him about it, I learn [sic] many new things and I could connect with him in [sic] a deeper level because of the knowledge I have about his religion and culture and now [...] [he is] one of my best friends."*

Another important aspect was that of using or applying knowledge outside of one's own cultural paradigm and in that way understanding and connecting to others. This was demonstrated in an example by a student who worked in a summer camp. Here, the student interacted with a Korean student with whom communication through language was difficult:

> *"[...] One day after supper, she refused to engage in games, and just [...] lay on her bed. [...] I thought she might be overwhelmed by all the people around her who she is [sic] not familiar with, and Korean culture stresses the importance of moderate [sic]. I took her aside to my cabin, and try [sic] to understand what is [sic] going on. She instantly seemed more relaxed and open with her thoughts. With a few word[s] like, pain, sick, and body jesture [sic] of covering her t[u]mmy, I find [sic] out that she is [sic] sick from the food that night. When I suggested to take her to the hospital, she try [sic] to tell me she is okay. I took her to the hospital and it turned out that she is lactose intolerant. I learned that for one to understand others body jesture [sic], it is important to think about their culture [sic] background, that could change the entire meaning of their body language. The girl was obviously not feeling well, but we did not know to what extend [sic]. The Korean culture stresses the importance not to bother others, she was trying to handle the pain on her own."*

*Open-minded*

**Characteristics:**

- curiosity and tolerance
- embracing diversity
- willingness to grow, adapt and transform

In category 5 (transcendental and transformational), the LPA *open-minded* was exemplified by embracing of and open personal engagement with diversity.

> *"[...] I went with my family to Japan[,] a[n] incredible and beautiful place. In this trip I acted open minded in certain points [sic]. For example the first day I got to Japan when I was entering [...] my hotel room guided by the manager I saw [...] a kimono and a pair of sandals [and] she told me that I have to use this when I was inside the hotel and [...] I understood that [it] related to their culture [...] I used this all the days and in [sic] my surprise it was very comfortable, I was surprise [sic]. I also tried in that trip to sleep in [sic] a mat in [sic] the floor like the ancient Japanese people and finally I ate a lot of unusual things in Japan [...] This help [sic] me to realized [sic] that adapting to things that seems [sic] strange could make you feel happy and could surprise you."*

Characteristics further included a curiosity about others and the world that is further distinguished by tolerance and a willingness to adapt and to transform one's views and behaviours.

> *"I used to believe that only my cultural values are right until I came in contact with another culture and started realising that there are some differences that I appreciate and [that I] would like to change my way of being not openminded."*

> *"3 years ago I moved to Argentina. At first I didn't like the idea of leaving my country, my friends and my family. [...] After some time, I realized this was my new reality and I had to accept it. Over time I started talking to people and getting to know their culture, their way of speaking and interacting [...]. I made friends and I fitted in. Now a days [sic] I look back and [I']m proud of my decision of opening my mind to this. At the beginning it was really hard since I didn't want to let go [of] my whole life, but then I learnt that its [sic] not to let go but to add experience into my life.  I learnt this for life. Now whenever I travel it's really easy for me to open up to people since I already have [sic] the experience and I learnt that opens [sic] up you have a much better time than denying something that is a fact and that is irreversible."*

### Communicator (Forms of Communication)

**Characteristics:**

- refined, detailed, nuanced and abstract communication
- communication transcends time and/or opinion
- effective collaborative and interaction through
  - critical and effective use of multiple languages (multilingual)
  - critical and effective use of alternative forms of communication (multimodal) to improve (one's own or other's) understanding
- use of the Arts (for example Acting, Dance, Music) and other abstract, embodied and conceptual modes to communicate complex (cultural) meanings and/or messages

In this category, responses to the question on the LPA *communicator* included examples of refined and nuanced communication of abstract ideas or in complex situations. One way this form of communication was manifested, was through the Arts.

*"[…] I mainly focus on dance and drama as a form of expression. Recently, in a drama piece […] I had to play the character of a refeugee [sic]. This character was obviously quite hard for me to relate to because I have never been in that situation but […] it allowed me to understand the severity of some situations and how they are innocent people. I wanted my monologue to be moving and to educate the audience on my character[']s realistic story."*

*"As a performer, I often find that dancing is an extremely effective and rewarding method of non-verbal communication. The various styles of dance and the way in which you can manipulate your body through space allows for different ideas, stories and concepts to be conveyed […]"*

Most examples demonstrated effective forms of collaboration and interaction that allowed access and understanding in cross-cultural situations or encounters. This was achieved through critical and effective use of multiple languages as well as alternative (multimodal) forms of communication.

*"[…] When I first moved to a country in South East Asia, I experienced cultural [sic] shock as it was completely different to the culture I was used to, however[,] by joining a dance school and dancing with people of all different cultures, I was able to overcome cultural and linguistic boundaries and make life-long friends."*

*"Having lived with music my whole life, I use music a lot to express myself when I come across a language barrier. Music to me is more predominant because it shows a lot of emotion and is very universal. […] [W]hen I […] first arrived to Brazil I didn't speak [P]ortuguese yet and so it was very difficult for me to communicate. Soon I started to share interests and connect with people without needing to talk. We started sharing music, songs we liked, bands, albums and even concerts. It was easiest with people that had the same musical taste as me, but I also like exchanging songs with those that didn't. This way not only did I begin to learn [P]ortuguese but I also expanded my musical knowledge. Now, I am fluent in [P]ortuguese and I have some strong friendships with people […] This situation showed me that I don't need to know everything before diving into a situation, and that there are many ways to communicate with people even though you speak different languages."*

*Critical Thinking (Inquirer, Thinker, Reflective)*

> **Characteristics:**
> - adaptive collaborative and communal thinking
> - refined, nuanced and complex inquiry, thinking and reflection
> - critical inquiry, thinking and reflection to make a positive impact
> - transcends opinion
> - considering power and privilege

Responses that demonstrated the LPAs associated to *critical thinking* (*inquirer, thinker, reflective*) in this category demonstrated a type of collaborative and communal thinking in the sense that their critical thinking was adaptive to others.

> *"When I arrived to [sic] New York w[h]ere I would spend a whole month interacting and socializing with people from all over the world I realized I had to adapt to each and every one of them as I had conversations with them. I had to be open minded and willing to learn from their cultures. [...] I had to be knowledgeable and careful about everyone's different traditions, belief and culture, as I didn't want to be disrespectful with [sic] them."*

> *"When moving to Argentina for the first time, I had to adapt to a whole new culture I was not familiar with. It was a new culture which I slowly started to turn into [sic] and start [sic] to become a part of. I learned new ways of making friends and start [sic] to become a part of a society I had never experienced before. Obviously [within] this culture arose new issues [for me] or changes like vocabulary and fashion [...] I was able to think about how I would use the clothes from that culture but also maintain my own style and how my vocabulary would change as I was with more people from that society. This helped me critically think about how the adaptation to a new place was important but at the same time [also the importance of] maintain[ing] my own version of everything that was happening around me."*

Furthermore, students demonstrated a somewhat refined and nuanced engagement with critical thinking and reflection. The mediator stance became apparent again in these examples.

> *"One of the times I used critical thinking in a cross-cultural situation was at a dinner with a Colombian family. One way or the other, the conversation we had got very political and we started talking about the history of South American countries and their rulers, discussing leftist and rightist views. At that moment, I decided that the best approach to*

*the conversation was to [...] not be overly critical about things that had happened that we had no control over. I also took the stance of a "mediator," making sure everyone was able to talk about the impact these different moments in history had on their lives, and ensuring that no one was being disrespectful to other cultures."*

Responses demonstrated the use of critical inquiry, thinking and reflection to make a positive impact for others, to mediate or to de-escalate and deflect a sensitive situation.

*"Ways that I used critical thinking in a cross-culture situation was deciding what the right decision was. Sometimes, friends can get out of control in certain situations and one has to think what is the best decision [sic]. In this case, one day I was with a group of friends and they were acting poorly around the culture of Chinese [sic], and I then decided to just gather them up and go somewhere else because it was messed up."*

*"I used to have a group of friends where [sic] I don't feel comfortable since they were immature and made cruel jokes about other cultures or [the] skin tone of other people. I used to say nothing but I felt really annoyed and angry about hearing that kind of stuff. After some time tolerating this I decided to stand up. [...] I told them to stop. Also, I decided this was a really toxic environment for me and I did not want to contribute to it. It was challenging for me to turn the back on my friends and tell them this was not right but I learnt it was better to do so. I stood up for every person who felt offended by them because they did not have the courage to face it. I feel [that] it's important to correctly decide the words we use, in the context we use them and with who. This experience taught me so."*

Students demonstrated that their inquiry, thinking and reflection transcended opinion. They were considerate of and effectively engaged in or with diverse and contrasting perspectives.

*"Once [...] one Japanese boy and a Chinese boy started an argument about World War II. It almost got to the point of fighting. So me and other [sic] three people interfered. It turned out that both of them misunderstood each other, and their intentions. Both of them think [sic] their country is the victim, and the other country is responsible for the war. So we explained to them there are [sic] no completely [sic] right or wrong about anything, there are always two sides. And when we look at something, we need to see both sides of the story. Both of their families have lost someone in the war, and that made it very personal for [sic] them. It shows how [a] war that ended more than 70 years ago still has its [sic] impact on the countries that were heavily involved. Both of the boys and their families are victims."*

*"[...] I was once involved in a discussion about a global issue [...] with people of multiple races/ethnicities. Everyone was very quick to jump on [sic] any argument they deemed "offensive" even for the simplest, most logical things, which simply disagreed with their own view on the matter. This irks me inexplicably, and I wanted to mitigate the heated*

*dispute which [...] arose. Therefore, I asked everyone to be quiet, and mindful/respectful of their own opinion but also of the fact that there will always be counter-arguments against everyone's ways of thinking, regardless of race, age, gender, etc."*

Students also demonstrated critical considerations of power and privilege and the complexity of the world, life and situations, along with contemplations on their interconnectedness with others and with the world.

> *"I used critical thinking in the geography classroom when we were discussing the situation in Syria. I realised the crisis was multi-dimensional and complex and was rooted in conflict between religion and ethnicities."*

### Caring and Principled

> **Characteristics:**
> - a (deep) realisation and consideration of interconnectedness and interdependence
> - support people, mediate, care and engage to bring positive change
> - a desire to make a positive impact
> - a differentiated and nuanced engagement with complex situations

Students who offered examples for the LPAs *caring* and *principled* in this category demonstrated characteristics such as a realisation of their interconnectedness with (diverse) others, situations and the world.

> *"I believe that one of the times I was particularly principled and caring in a cross-cultural situation was when explaining to the kids [...] why being friends with Asians was no different than being friends with anyone else. From the moment that they made the comment that being friends with Asians was weird because of the cultural and language [sic] barriers, I knew I had to re-educate them, but [I] also [had to] understand that they had never known any different. I realized that the media usually portrays Asians as less social and [...] [they are] never really seen mixing in with the main characters unless they are the "nerdy" friend. To me, this was shocking because my best friend was from Japan, and I didn't think there had been any barriers to our friendship that you wouldn't find*

*between others [sic]. I was very principled to not be influenced by their comments and also to stand up [for] a group [of people] that wasn't even present."*

In their responses, students showed their ability and drive to mediate between and to support others in order to improve situations. They empathised with others in practical and direct ways as they were willing to intervene in situations that were unfair or unjust.

*"[…] I reached out to the person being insulted to make sure they were okay, since what the other one had told [sic] them was very harsh and hurtful. After talking to them and making sure they were feeling better I reached out to the one insulting them and let them know how much they had hurt the other, and how wrong what they did was, before starting the conversation where they explained their point of view."*

Students also demonstrated a desire and a joy to make a positive impact in other people's lives.

*"In school we have a course that is called CAS[57]. […] I […] started this course, 7 month ago, and [I']m not joking when I say, that [it] is the best thing that ever happen to me. In my opinion this course [can] change [how] people think and [live]. This course [made] me a better person, and […] I became a caring person when I prepared games and celebrate [sic] kids bithday(s) […] I understand that you can be a better person each day [and] that you can help another human being just with a simple game, tools, or a birthday cake, [so that] the other one will have a smile in his face."*

Students were able to differentiate their responses to diverse circumstances and to adapt to complex situations, making a difference to the outcomes in the process.

*"[…] During my years in secondary I participated in an exchange program. I had already been to my exchange partners [sic] country (USA) and it was now his turn to come to mine. […] During the time he spent here I was trying my best to make him feel comfortable and avoid those things that I felt were missing when I had gone to his school. That was the first goal of treating him as good as possible by making [sic] him have a comfortable stay. The second issue arises [sic] from this same goal, that [sic] was to deal with any sort of racial discrimination that he would encounter in a country where only 0,4% of the population is black. Achieving this goal was my mayor [sic] challenge during his stay. There was one particular instance in which my exchange friend was not present and people around me decided to talk in a derogatory manner about him […] I was faced with the decision to choose what to do about it. […] I knew I cared for my friend. I knew I was not going to let people insult him […] And I knew I couldn't let this slide because they could have easily repeated it in front of my friend and make [sic] him feel extremely unwelcome and rejected.*

---

[57] *"The letter[s] of this course represent creativity, activity and service. Basically, each one represents: Creativity: The arts and other experiences that involve creative thinking. Activity: Activities that involve a physical effort or challenge and that face a healthy lifestyle; [c]omplementary academic work done in other subjects of the DP. Service: A voluntary and unpaid exchange that means learning for the student […] in which he respects the rights, dignity and autonomy of all the people involved."*

*That's why I interrupted these peoples' conversation and step [sic] in […] I ended up arguing with them in a civilized manner about why what they had just said was simply unacceptable and plain rude. […] The exchange student ended up having such a good time and inserted [sic] himself so well in my friend group [sic] that he came back one more time. This time not to study but to simply be with the friends he had made on [sic] his stay here."*

*Risk-taker (Willingness to Act)*

**Characteristics:**

- leadership (to take leadership on initiatives)
- a conceptual approach to problems
- innovation (new approaches and ideas to solve problems)
- adaptation, transformation, transcendence

Responses to questions on students' *willingness to act*, also associated with the LPA *risk-taker*, demonstrated that students had a drive to take leadership on initiatives and to organise events that were needed in response to a local or global issue. Students were using conceptual approaches to solving problems, combined with new and innovative ways and ideas.

*"I run an environmental group in my city that helped unanimously pass a city climate change recovery resolution to help us be more sustainable and fight climate change. We are still partnered with the city and are helping [to] design their climate recovery plan for [sic] going forward."*

*"A global issue I am greatly passionate about is environmental conservation and green infrastructure. The way I take action is public speaking [and] outreach for spreading awareness of green infrastructure [a]nd starting a project to install green infrastructure onto my high school's campus."*

There was some evidence of students' willingness and abilities to adapt to situations in order to bring change.

*"I took action on an environmental issue, because I love the environment. I made the choice of going vegan 2 years ago, and although I've converted to vegetarian [sic], I still mostly follow the lifestyle of veganism, by not buying cruel products or leather and fur. It's a small thing to do, but I believe it can make impacts [sic] on this world in the long-term."*

Students were also considering power and privilege in their considerations of what type of action to take.

> "[…] I have volunteered many times at the soup kitchen […] and volunteered my time at a [M]iddle [S]chool [for deprived students]. Both of those experiences deepened my understanding of how privileged I am. […]"

Another interesting point is, that students were considering the scale of their engagement and were able to draw connections between their actions and its impact on a local or global scale.

> "As a school leader, I coordinated fundraising events for children in the Congo in order to provide for them. This is a small action that can help work towards closing the poverty gap. I hope to one day implement bigger actions to help people from other cultures to live the best life that they can."

> "My service activities although [small] on a global scale […] [did] address […] global issues. […] [By volunteering at a soup kitchen], I addressed the cause of world hunger by serving people who don't have the proper money for food and [by volunteering at a] [M]iddle [S]chool [for deprived students], [I] addressed a more widespread issue of poverty. […] Even though my contributes were not [on] a global scale, it was still [a] global issues making me more understanding of how real these issues are in today's society."

### Category 4: Proactive Engagement and Interaction

**Characteristics:**
- proactive interaction and transaction with others
- contextual awareness, consideration of other perspectives, using someone else's reference framework for enhanced understanding
- consideration of personal views and perspectives in relation to others and the world
- seeing oneself connected to the circumstance and to others

This category was characterised by the ability to look at situations and people from within a different context, by stepping into someone else's shoes. The category also demonstrated increasing interaction with new or intercultural information, people and situations. The figure below illustrates how a person may understand themselves at this level in the context of others and

the world. The diagram shows the increasing understanding of connectedness and that one's own perspective only offers a part of the bigger picture of other cultures and the world.
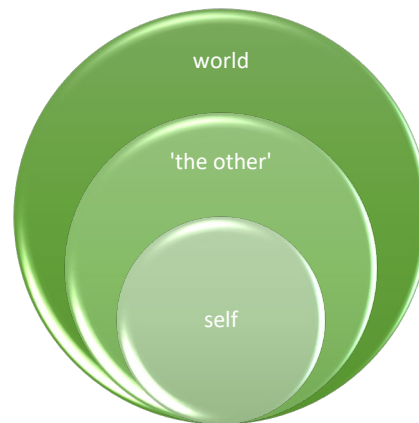
In this category, students were increasingly attuned to themselves and understood themselves as part of a greater context. They were confident about themselves, their cultural identity and what it means to express themselves respectfully [1]. Students were able to consider their own perspectives in relation to those of others [2].

> [1] *"A moment in which I took action on a cross-cultural issue was when, in my old school, we asked the school to allow us to speak our native language between each other. In the moment [sic], we weren't allowed to because the school thought it wasn't inclusive to the people that didn't speak that language. My friends and I went to speak to the school and tried to get them to change that because we believed that it was p[a]rt of our identity, and that in a school so culturally diverse, we should all be able to communicate in any language as long as it was respectful. This experience made me learn that I can always speak up for myself and that I should make sure my identity doesn't get overshadowed by other cultures and traditions."*

> [2] *"Often in my interactions with people from other cultures they will tell me something about their cultural practices or values that I am instinctively skeptical about or disapprove of, but I try to understand why this cultural practice may be important to them even if I disagree with it. This is challenging as I have very strong opinions and I hate to accept things that I think are wrong as 'cultural differences' but I understand that sometimes one must prioritise a relationship or interaction over asserting one's personal views."*

This level is further characterised by students interacting effectively with people and information. It is also characterised by a more contextual approach to interactions, meaning the complexity of backgrounds and situations within these interactions are considered more fully. Through such interactions, students understand the world better and extract or construct meaning (Johnson, 2019).

> *"When I went on a trip to Italy […] I tried to get as much information about their culture as possible and I was open to everything they showed me. I heard stories about the people from there and I learned a bit about their language and I think that this trip really helped me to enrich myself with their culture."*

At this level, students were also increasingly attuned to others and understood them in consideration of their different reference frameworks and perspectives. Adjustments were observable in students' behaviours and attitudes. Responses were further characterised by a greater care and concern for others [1]. Students' opinions and view were no longer the centre of the interaction, but a part that contributed and was considerate and respecting of other (moving) parts (e.g. other participants) that also shaped the interactions. As part of this, students were also willing to step up and defend others [2].

> [1] *"I am naturally a very tolerant and liberal person who treats people of all ethnicities and cultures in the same welcoming manner. Yet there are times in which I come in contact with a person whose culture I am not fully familiar with. In those situations, I know I must think through everything I want to say to that person, though I am confident I won't even think of doing any offensive act towards the person of that culture."*

> [2] *"When […] some of my friends were making derogatory remarks towards the Arab culture, […] I stepped in and expressed my belief that the Arab culture is just [as] important as any other culture in the world."*

Furthermore, students were increasingly attuned to the world around them. They demonstrated understanding of the complexity of the world and systems they live in and were confident about their engagement with these.

> *"Another project we are working on in Stanford is a Global Solutions Project. In this course, we "design" our o[w]n island, in which we build its own history, economy, identity, among others. This allows us to think and design ways to make the world more sustainable and to fight against existing global problems. "*

*Knowledgeable*

> **Characteristics:**
>
> - understanding of and engagement with increasingly complex local and/or global issues
> - awareness of interconnectedness with others and the world
> - understanding of languages and cultures with increasing refinement
> - interactive and proactive engagement with knowledge acquisition
> - consideration of and engagement with diverse perspectives, opinions, experiences, etc.
> - awareness of and respect for others' needs

In this category, student responses for the LPA *knowledgeable* demonstrated a – sometimes still simplified – understanding of and engagement with increasingly complex local and/or global issues. This included understanding of languages and cultures with increasing refinement.

> *"When I am around the families of certain friends who come from countries such as Japan or Korea I am very careful about my perceived respect for their parents. It's difficult because I'm used to being very casual with my parents in a way that people from other cultures might consider rude. [...] I just don't want to be perceived in a negative light – I don't necessarily agree with hierarchy between elders and youth."*

Furthermore, there was an interactive and proactive engagement with knowledge acquisition, for example through people, but also proactively seeking or interacting with information.

> *"I'm aware that there's a lot of bacon in Western countries, and as I'm Muslim I'm not supposed to eat bacon. From there, I just chose my food carefully, and examine[d] [...] [the] ingredients [...]. I found out that it was pretty challenging in some areas, and easier in the other (usually the more multicultural places have more bacon- and pork-free food)."*

Students demonstrated a consideration of and engagement with diverse perspectives, opinions, and experiences and were able to consider situations from different perspectives. Specifically, students were able to understand a topic or situations from someone else's context or perspective and to be considerate of how experiences and contexts might affect their views.

*"Going to an international school I use knowledge to understand some of my classmates' values and how they view some topics, [u]nderstanding that there will be differences in opinion and discussing why culture impacts our opinion."*

Students also showed an increasing awareness of their interconnectedness with others and the world around them [1], which ultimately lead to an awareness of and respect for others' needs and to being supportive of or helpful to others [2].

[1] *"[…] I was in an Aboriginal community and both me and a girl my age were curious about each other's differences and similarities, and found out a lot of information regarding our two different cultures through each other."*

[2] *"When my family invited guests over for supper, and I told my parents that we should be mindful of other cultures' dietary habits, so we should prepare food that's acceptable for everyone's cultures [sic] who were [sic] coming. […]"*

*Open-minded*

> **Characteristics:**
> - proactive engagement and interaction with diverse perspectives
> - active acceptance and critical appreciation

In examples for the LPA *open-minded,* in this category, students demonstrated a proactive engagement and interaction with diverse perspectives, habits, traditions and ways of life.

*"Whenever someone of a different culture is openly representing their cultural differences, I will initiate a conversation and ask them about their culture. […]"*

*"I went to Spain over the summer for a language immersion program. I lived with a family who spoke no English and included me in their everyday life. This left me very little choice in being openminded as it was my life for six weeks. It was challenging because they had customs different than [sic] my own. I was forced to break some habits and find middle grounds between our two worlds. What I found was that sometimes my family could appear rude when they asked me to do things one way but they were really just requesting what they considered to be culturally correct. Communication was the best tool I had to make them understand that I wasn't acting "odd" but instead doing things by a different cultural standard."*

Examples also illustrated a critical appreciation and active acceptance of diverse others and their views and perspectives, meaning that students critically distinguished what is right, rather than following preconceived norms and expectations.

> *"[...] I listen to my friends that come from different cultures and want to explain something contrary to my belief. I listen to them and perhaps try to explain my own beliefs before attempting to create a mutual understanding. It is sometimes hard to put aside your own beliefs but you have to in order to understand the people around you. From this situation I learnt about how my view is different from someone else's and that it is important to be able to listen and [to be] openminded to other possibilities and views."*

*Communicator (Forms of Communication)*

**Characteristics:**
- multidirectional and interactive communication
- multimodal and multilingual communication
- contextual and interconnected interactions with others
- time investment in the communication and engagement with others
- awareness of and adjustments to others and their needs in cross-cultural communication

In this category, examples for the LPA *communicator* were representative of multidirectional and interactive communication. Examples demonstrated that students were mindful of others and adjusted their communication style to the needs of others.

> *"I always try to interact in cross-cultural situations with some formal knowledge as to not offend, but if I struggle with communicating with an individual I try to find some common ground and make sure to listen intently. If it's still not sufficient I try to use some form of common body language between cultures so I can express a point clearly and effectively."*

> *"On exchange, I was able to communicate with people by trying to speak in their language."*

Students also demonstrated a willingness to invest time and to engage in sustained exchanges of thoughts and ideas (as opposed to single encounters with a specific purpose or gain). Furthermore, examples featured contextual and multidirectional communication with others.

*"Usually when I can't express myself through language I try to write about what I feel and what I think. I'm not used to sharing it and I used to kept [sic] it to myself. Last winter I spent time with one of my best friends in Chile. During that trip we shared between us what he had wrote [sic] during this current year. We learnt about each other and how we cope with some problems that we are not used to open [up] about [...]. It was really hard since I felt really uncomfortable talking about my feelings and I felt ashamed because my quality of writing was not that good in my opinion. I was really shocked about what my friend had gone th[r]ough and he never talked about it. I learnt about trust and love between me and my friends."*

*"Some years ago, my sister had an exchange student from South Africa come to our house where she stayed with us for around two to three months. While she stayed with us we discussed how different our lives were, but sometimes we did not know how to explain certain things to each other since they were difficult to explain, so we used different media such as videos and images."*

Forms of communication included both, multiples languages and multiple forms of communication, often in combination to aid understanding.

*"[...] At a camp I attended there were two campers from Guatemala who were semi fluent in English. At one point we were talking about sail boats and they didn't know [...] [what] we were talking about. In the end we ended [sic] drawing one on a napkin. [...]"*

*"Body language and facial expressions are really important when trying to communicate with others."*

*"I use my hands a lot. [...] I am just a walking windmill."*

*"[...] When I was volunteering in the hospital, a little girl could no speak [E]nglish but was in pain so her and I used communication through signals to describe where her pain was. Then, on a scale with sad to happy faces, she showed me where her pain level was."*

*"I use lots of physical language while communicating, and they [sic] change from one social setting to another. Physical language help[s] me communicate with people that do not share [a] language with me [...]."*

Forms of communication also included communicating complex messages in Sports [1] and in the Arts [2].

[1] *"There were some times in which I used other forms of communication. One time was during my soccer games. Knowing that there comes a time when I have to communicate in a different way [...] I positioned myself behind a teammate of mine. What I knew was that the teammate was busy trying to cover the opponent with the ball. So by standing behind them, I was able to create a stronger barrier against the opponent. When he tried to pass*

*the ball, in which he was closed* [*sic*] *to the goal coming from the right corner of it* [*sic*]*, I blocked it and it went out.*"

[2] "*Theatre, drama and the acting world* [*sic*] *have also been a way of expression for me. I performed an acting* [*sic*] *dramatic duet in a forensics competition with one of my friends* [...]. *We earned an Honourable Mention and I feel as though we raised awareness to young people like us, of this savagery that was practised.*"

*Critical Thinking (Inquirer, Thinker, Reflective)*

**Characteristics:**

- critical engagement and interaction with issues, ideas, topics, and information of local and/or global significance
- ability to adjust to learning contexts
- taking a variety of sources into consideration
- discussions and conversations with others to learn, inquire and share insights or perspectives

In examples for the LPAs associated with *critical thinking* (*inquirer, thinker, reflective)* students demonstrated the ability to engage and interact with issues, ideas, perspectives, topics, and information of local and/or global significance in diverse ways, and to adjust to different learning contexts inside and outside formal education.

"*I am taking the IB Global Politics Course, so in class we often analyse various global situations, carefully taking account both perspectives and applying theories of international relations.* "

"*In art class, I analyzed artists that came from different cultures and describe* [*sic*] *how it is reflected in their art.*"

Furthermore, examples in this category illustrate an engagement with and consideration of a variety of sources [1], the ability to keep an open mind and to remain unbiased in the light of different opinions [2].

"*When working on a presentation I had to take many cultural aspects into consideration to not offend anyone. It is always a hard job to determine right from wrong, but by using*

*internet sources as well as people it allowed me to easily maneuver past the controversial problems I could have been presented with."*

*"Thinking about the causes of the Yugoslavian War, within a class where the majority of students were Croatian, you here [sic] many biases depending upon where you live and who you speak with, being able to remain unbiased while thinking critically is a great skill to have."*

Responses showed students discussions and conversations with others to learn, inquire and share insights or perspectives.

*"When it comes to history, there is a lot of discussion and application of critical thinking. Looking at the values of the cultures helps see the perspective of the other person."*

### Caring and Principled

**Characteristics:**

- compassion and empathy through active engagement
- compassionate engagement with global and/or local issues and situations
- consideration of perspectives and relating to others
- awareness of and respect for others' needs which results in adjusting to and accommodating others
- standing up for others or for something even if it makes oneself uncomfortable to speak up

Examples in this category for the LPAs *caring* and *principled* demonstrated compassion and empathy through active engagement with and support of others.

*"One of my friends is Muslim and they were struggle [sic] during Ramadan as we had dance all day and [they] couldn't eat. So I helped motivate [them] through out [sic] the day and helped [them] get through despite [...] being tired and hungry."*

Students demonstrated a form of passionate consideration of global and/or local issues and situations.

*"During a chemistry class in my old school in Rome, we were discussing about how maybe in the future there might some more technologically advances [sic] cars. I immediately*

*entered the conversation expressing my concern for global warming and how it might worsen. I also expressed my concern for the air that humans breath[e] everyday, since it is full of pollution, and may cause some diseases to the lungs."*

*"[...] I took a World Religions class where we learned the true facts about each religion and the culture's way of life through that religion. That class took a lot of critical thinking because you had to take away the media's perception of religion and read what the religion is actually about and then decide for yourself what you think it is. [...]"*

*"All the time, when I read about events that occur in countries other than my own I analyse them according to the situation in which the country is in."*

Furthermore, students were considerate of others' perspectives and needs and were naturally tolerant and accommodating to others.

*"I always try to make other people comfortable in conversations [...] I try and act the same toward everyone, and am probably kinder to people of different cultures [...]"*

Students are able to relate to others and their situation and are willing to stand up for others or for something even when this is initially uncomfortable.

*"When people make racist jokes I like to point out that they were [sic] being a racist and how messed up that is. [I] learnt [that] it feels uncomfortable but then becomes a habit. I certainly know I enjoy someone sticking up for me even if I don't feel discriminated against."*

*Risk-taker (Willingness to Act)*

**Characteristics:**
- take initiative or action (often repeated or sustained) to local and/or global issues or problems
- defend or stand up for someone or something; help or aid someone
- debating local and/or global issues under consideration of diverse perspectives
- devise (innovative) solutions to local and/or global problem

In responses to the question on *willingness to act* (LPA *risk-taker*) in this category, students showed initiative and proactive engagement with situations of local and/or global relevance [1]. Their initiatives or actions were often sustained, repeated or ongoing [2].

> [1] *"The most simple global actions I took [...] was [sic] [...] [on] a school trip to the [S]outhern part of Argentina. Here we found ourselves with kilos of trash being thrown at the beach and many animals dying because of it. In response, we decided to take a day of our vacations and pick up as much litter as we could find."*

> [2]
> *"Volunteered at a homeless shelter to directly help the homeless, which is an issue that is on a global scale."*

> *"I helped disadvantaged children to learn to read."*

Students were also willing to stand up for others [1] or to proactively help others for example to get integrated to a new culture [2].

> [1] *"If I notice my friends are being picked on for their cultural differences I will stick up for them and support them"*

> [2] *"I always try and help new members of our school community [...] [from] other cultures fit in and get to know our cultures and customs."*

In addition, there were many instances where students gave examples of their involvement in the Model United Nations (MUN) where they would debate matters of global significance from diverse perspective and propose solutions under consideration of different countries' needs and interests [1]. Some students gave examples of debates on topics to better inform others of local and/or global issues [2].

> [1] *"I have participated in a few simulation events (e.g. Model United Nations) in which the aim was to learn about global issues, and come up with hypothetical resolutions. I have not yet taken part in any real-life events of resolving global issues, but my goal is to do so in the future."*

> [2] *"In class, there were a few classmates who did not believe police brutality was an important issue in our society, nor did they believe racism still existed. I proceeded to calmly discuss why they thought the way they did and explained calmly the systematic racism, racial prejudice, bias, and microaggressions that is [are] ingrained in our society, using examples from their lives."*

Students also gave examples of innovative solutions to local and/or global problems.

> *"I created a water filtration plan for third world countries with contaminated water."*

## Category 3: Functional and Observational

> **Characteristics:**
> - passive observation (passive acknowledgement of the other and of diversity)
> - interaction with other cultures on own terms and based on or related to own views and perceptions
> - one-way understanding of the world
> - non-contextual understanding of the world and oversimplification

This category was characterised by examples that showed an acknowledgement of others and the world which was largely informed and shaped by one's own perspectives and views. The figure below illustrates how a person may understand themselves in this category in the context of others and the world. The diagram shows an emerging understanding of connectedness, which remains reserved and confined to simple acknowledgement of the existence of different 'bubbles' which inform each other to a limited degree.
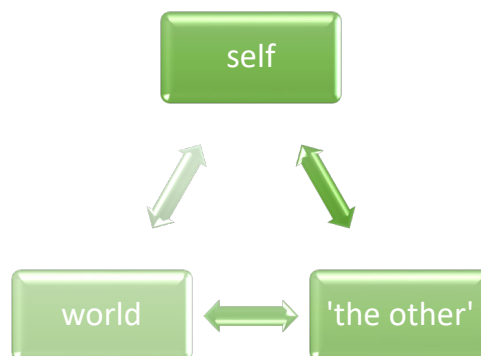


*Figure 16: Illustration of the category associated with functional and observational behaviours and attitudes*

In this category, students demonstrated that they were increasingly attuned to themselves. They started to understand themselves within the context of their own culture or 'bubble'. Examples demonstrated that students are in harmony with themselves and the world as long as the confined 'bubbles' of 'self', 'the other' and 'the world' are intact (see figure 3).

*"I acted knowledgeably in history class when the teacher talks [sic] about my own culture. It was easy for me. [...] I learned that I actually know a lot about my culture"*

*"When interacting with Israeli people of Jewish ethnicity and religion, I am able to understand most of their values and concerns based on the fact that I, too, am Jewish, and keep up with the events occurring in that community of people. Though Israeli Jews and Eastern-European Jews differ slightly in worldviews and such, it is very easy to find common ground in the same ethnic principles."*

*"When a group of my friends was discussing a cultural issue about my culture. I learnt that most of these discussions are quite opinionated."*

Transpiring at this level was a removal from the entirely self-absorbed worldview of category 2 along with an emerging awareness, curiosity or consideration of others. While students also become increasingly attuned to others and develop an understanding and appreciation for the 'other', the interpretation of the 'other' is limited to their own reference framework or the narrow context of their own culture or views (as opposed to considerations of the context of the 'other'). An understanding of the world was rather superficial and simplistic, often linked to oversimplification and generalisation, in which misconceptions were still evident.

*"When talking with my class about an issue, I brought up the culture of some countries where something we find disgusting or inappropriate is the norm and why it is the norm. [...]"*

*"[...] when di[s]cussing different political views and having to accept other views besides your own as long as they dont [sic] compromise you. From situations like these you have to learn that many people can view their opinions as the only right opinion and you cant [sic] change that, regardless of how correct you think you are."*

Although students become more aware of and curious about the world around them as they recognise differences and diversity as part of their lives [1][2][3], they remain rather detached observers of the world, rather than being engaged participators or actors in situations. Even when students engage, this is mainly by following someone else's lead, rather than through a proactive approach [4][5].

[1] *"In a cross-cultural situation, I am aware that there will be different opinions on [sic] my own beliefs, and I try to be as open-minded and respectful of that as possible."*

[2] *"At my school, there are many cultures from Mexican, African American, Caucasian, and [sic] Polynesian. In some cases, each culture from a different ethnic background have [sic] their own customs such as for Mexican[s] they [sic] celebrate the day of the dead or clothing apparel such as Polynesians who wear [L]e faitagas which are towel-like figures*

*[sic] that go around their waist. Of course, I have to act knowledgeable in these situations because its [sic] people's cultures and I have to respect them."*

[3] *"Anytime that [sic] I asked a person that lives in the US their [sic] opinion about politics and society [...]"*

[4] *"At school we learn about other cultures, the history of segregation of different cultures and ethnics."*

[5] *"Teachers talking about a subject of the past, explaining clearer the reasons why that [sic] happ[e]ned."*

In general, students still displayed a rather self-centric, superficial or limited engagement [1], for example in exchanges that provided a direct benefit to them, where they imparted their knowledge, perspective or actions on others, or where they instructed others to more effectively understand their own, personal world, culture or background [2]. Examples of intercultural engagements were often somewhat tokenistic [3].

[1] *"When I can't explain something through language I use body language. For example in a market, to show what I want to buy."*

[2]
*"When my friends and I from 4 different cultures gathered and discussed about the similarities and differences of cultures, I was knowledgeable about my culture enough to let them get into my culture for at least couple of minutes."*

*"During the history lesson I could tell the other students about [what] have [sic] happened in my country."*

[3] *"I have greeted people in the person's [sic] traditional cultural greetings."*

Nevertheless, students showed the desire to do right by others in the sense of 'respecting others is right, disrespecting others is wrong'. They started to recognise stereotypes and to identify these as wrong. However, this was more related to a passive acceptance of norms and knowledge, than a specific personal conviction or critical engagement.

*"Yes, about immigration issues and how immigrants from one country have a negative image, even though that image does not represent most of them."*

There were demonstrations of students' emerging understanding of their interconnectedness with others or with the world [1], albeit, as mentioned above, this was largely limited to their own own

reference framework [2] or an oversimplified and limited awareness of and engagement with another culture [3][4].

[1] *"[…] when something tragic happens around the world, eventhough it just affects a certain group of people from a certain cultue, I believe that everyone should help, through donations, [because] even though […] that group of people has nothing to do with my culture, we live on the same planet and I think everyone should help and be caring with everyone, that way [sic] we will be able to progress as a civilization in a much easier way."*

[2] *"[…] when I encountered foreign students struggling to adjust (fit in) with Western cultures, I helped these foreign students to adjust into a different culture by helping them realize the similarities and differences between their culture and the [W]estern culture. […]"*

[3] *"[A]ccepting that [M]uslim people do not celebrate Christmas, […] I did not question my friend and annoy[…] him by aski[n]g […] what present he received at [C]hristmas"*

[4] *"When going out for ramen with some friends (who weren't Japanese) I told them to not stick the chopsticks into the rice as that is what is done when someone passes away"*

*Knowledgeable*

> **Characteristics:**
> - situational knowledge and understanding
> - elevation of personal knowledge to global significance
> - imparting or sharing personal knowledge and understanding with others
> - minor misconceptions with some superficial understanding

Student responses to questions on the LPA *knowledgeable* in this category demonstrated situational (as opposed to contextualised) knowledge and understanding and a type of elevation of personal knowledge to a global significance [1]. In addition, examples often illustrated the perceived importance and value of students' personal cultural knowledge [2] or opinions, views and perspectives [3].

[1] *"Yes, when my grandmother visits. She knows a bit about the American culture, but not much. So, whenever she comes here, I help her […] when it comes times [sic] to interact with others [i]n our culture."*

[2] *"When my friends and I went to eat food from my culture, I knew what to recommend [to] my friends [...] [as I] introduce[d] them to newer foods that they have [sic] not tasted [yet]. Through this experience, I learnt how important a culture is to an individuals and how it influences [and] surround[s] individuals in the way that [sic] they experience and learn."*

[3] *"When I went to [C]hina I had to use knowledge and [sic] explain my opinion on Australia and it was quite easy to explain what Australia is like and our cultural views on [C]hina without being offensive"*

Being knowledgeable was illustrated by students imparting or sharing their knowledge on or with others, as opposed to interacting with knowledge or increasing one's own knowledge.

*"I've lived in many countries on different continents, such as the US, [D]ominican [R]epublic, [J]apan, [D]enmark, and [P]oland, and have been to many international schools with people of different cultures or races, so if there is any general situation (such as in class) where I can share experiences or knowledge, I try to."*

*"During dinner, I was at the table with my British friends (I am not a native [E]nglish speaker) and I was telling about [a] situation in my home country (war) with facts, my opinion, and those who didn't know about the war agreed with me and understood me without any problems."*

Given examples demonstrated a somewhat superficial or generic knowledge and at times included (minor) misconceptions.

*"What is allowed or prohibited for certain kinds of culture[s] or religious beliefs without the reminder from others. For instance, try to avoid eating pork right infront of Muslims."*

*"When visiting foreign countries, I knew some of their culture, arts & crafts etc..."*

*"When I went to a Buddhist temple, I dressed appropriately and took my shoes off as was customary."*

## *Open-minded*

> **Characteristics:**
> - Accepting and adopting (willingly) norms of respect
> - (Superficial) acknowledgements of other views

Examples for the LPA *open-minded* in this category demonstrated a (passive) acceptance of norms of respect, for example being non-judgemental to a cultural manifestation or respecting a cultural or religious practice as a guest.

> *"One time I was openminded about another culture was when I was in vacations [sic] with my family in Mexico and one day at the resort they prepared [...] only local food for the tourist[s] to try. That day I think I was open-minded because I tried new things without judging them by their looks."*

> *"I acted openminded when I went to a Hindu temple in Bali. I was open to all the practices and beliefs of the traditions and practices going on in the temple. For example, I understood when I had to take my shoes off to enter the temple."*

Furthermore, there was an acknowledgement of other views and perspectives, and acceptance of different cultural traditions and backgrounds, although this could at times appear superficial and/or tokenistic.

> *"I am constantly openminded about another culture such as when there was a culture fair at my school and everyone was very welcoming of each culture."*

> *"When I went to Morocco I dove into the culture and ate traditional food, wore some traditions clothes. It was cool beans."*

A critical or proactive element was not always evident, meaning examples might demonstrate students following along or appreciating something that is being presented without further evidence of deeper engagement with or critical consideration of another culture.

> *"I had never eaten a traditional Chinese dim sum but was open minded to all the food and tried everything. It was not challenging because the food was good. Now my family regularly goes to a traditional dim sum service."*

*Communicator (Forms of Communication)*

**Characteristics:**
- functional
- superficial communication with lack of detail or information
- limited interaction
- limited use of unfamiliar languages
- basic use of alternative forms of communication

Examples for the LPA *communicator* in this category were usually of a functional nature. Communication was often limited to one-way communication that was focussed on making oneself understood or achieving a desired aim when '*others don't speak English'* or *'others don't speak my language'*. Communication remained fairly superficial with lack of detail or information to interact with others. Alternative forms of communication were also focussed on the functional use to bring a message across and included changes to mannerism, gesturing and other body language, mimicking, making sounds, using images or pictures, acting something out, etc. However, the use of technology was also brought as a medium to aid basic communication.

> *"When I was living in Vietnam, I was in a taxi and I did not know how to say left or right so I tried using hand symbols in order to communicate. It was hard for me to express myself without language but we figured it out."*

> *"In any other foreign country, I always had a situation in which I had to find a way around the language barrier. Most frequently that would occur in restaurants [and] to overcome the problem I would always resort to the universal language – hand gestures. This has happened many times, but it never fails."*

> *"Living in a country where English isn't the first language can be challenging and I will usually resort to body language and non-verbal communication when I come across somebody who doesn't speak English."*

> *"[…] It is either words or gestures. If I am talking to somebody that does not know any of the languages I know, then I open Translate or ask somebody to help me with the communication. But, if there is no one that can help me, I try to explain with gestures."*

Some examples demonstrated limited adjustments to communication and superficial acknowledgement of others [1]. Nevertheless, a few students indicated an awareness of their own linguistic limitations [2] or a desire to be polite [3].

> [1] *"When traveling in Asia I would often have to either use body language or a slower simpler version of [E]nglish in order to communicate."*

> [2] *"Whenever my parents let me go out with my grandmother when we are in Spain, I have to use my limited Spanish and pointing [sic] to things to express what I want to talk about."*

> [3] *"I can't think of a specific situation but I know that being silent at certain times is important to be respectful. There are important uses of body language in cultures to communicate your respect for another [sic], like bowing your head."*

Some examples showed students aiming to understand others (as opposed to just making themselves understood) and they did so on a functional level.

> *"Body language is usually the other form of communication or expression that I use. I use this very often. I used to use it when I first came to Canada, when I was 10 years old. I didn't know much English at that time so the only way of communicating with others was through body language. I also use [...] it at summer camp settings, especially the last two years. Parents seems to think that it is good to let their kid [...] go to a summer camp on their third day in Canada. I also used i[t] at Open Door society."*

Some examples shared forms of communication through cultural norms [1] and ways to communicate emotions and feelings. Particularly interesting is the use of emoticons (i.e. emojis) as universally understood representations of emotions and feelings in some student responses [2].

> [1] *"In Korean culture, a way of greeting is very different from other cultures. Although it's not through [...] language, those aspect[s] of culture [are often] [...] expressed in [...] cross-cultural situation[s] [...]"*

> [2]
> *"One common way through which I can communicate my feelings and thoughts in a cross-cultural situation is through body language and hand/body gestures. Quite often, when meeting people from other cultures, I can sometimes find it difficult to communicate through language so facial expression as well as hand gestures can be useful."*

> *"I'm definitely fond of usage [sic] of emojis to portray language when there is a barrier [...]. I have used them quite extensively in online gaming to communicate to people when [...] we do not speak the same language. This is especially important in online multiplayer [games] as players can connect and play with each other from different sides of the world. It solves areas of miscommunication by having a universal way to express [...] when someone is doing something wrong or happiness when things are going right. [...] even though we speak different languages we are all connected in the emotions we can express."*

*Critical Thinking (Inquirer, Thinker, Reflective)*

**Characteristics:**
- limited inquiry
- superficial thinking and reflection
- typically, minor misconceptions, simplifications and generalisations

In this category, student responses for the LPAs associated with critical thinking (*inquirer, thinker, reflective*) demonstrated limited inquiry that was restricted to observing, listening to and accepting what was being presented or experienced with limited reflection [1]. Examples of thinking and reflecting were often superficial and defined by personal and situational perceptions as opposed to wider contextual considerations [2].

> [1] *"Once I invited some friends at* [*sic*] *my house to do a sleepover, and one of them couldn't stay because in her culture they don't do a sleepover. So I was thinking why it's not something that they do with they* [*sic*] *friends."*

> *"When listening to someone else I use critical thinking by analysing what they are saying and connecting it to my own experience."*

> *"At an event I attended, there was a short play in another language. I used critical thinking in this situation by analyzing the way others were reacting to the play for my reactions. Based on the actions of the characters and the audience, I created my actions* [*...*] [*from*] *the behaviours of both."*

> *"During school chapel we had* [*a*] *Muslim speaker at* [*our*] *Christian school and I accepted the idea and thought of the similarities"*

> [2]
> *"Well, we had a debate about: What will you do, if you* [*encounter*] *someone from other* [*sic*] *culture in a street &* [*the*] *whole street is empty, it's just me* [sic] *and him? Well, I thought I will just walk past him."*

> *"I have had a few situations in which I wasn't informed enough to engage in the topic, but I used connections to my own background and culture to make sense of it and* [*to*] *be able to join the discussion."*

> *"At my job when there are people who speak other languages, notably* [*S*]*panish. I do my best to cater to them by asking them the minimum* [*number of*] *questions with a smile."*

Critical thinking in intercultural contexts was limited to obvious cultural experience, such as food, clothes, or observable behaviours.

> *"The first time I ate at my friend's house, who has a Hindu background, I was surprised that eating with your hand is normal. In my culture, it is impolite to do so. However, I found it a*[*n*] *enriching experience to observe them eating with their hands and join them."*

While examples of critical thinking typically demonstrated simplification and generalisation leading to some misconceptions [1], there were emerging notions of weighing pros and cons on

simple issues [2], asking and responding to critical questions [3], or arguing one's own position or views [4].

> [1] "*While I learning* [*sic*] *about Hinduism* [...] *I thought about how the idea of reincarnation is similar to evolution. The first stage of reincarnation is small, where an individual would begin life as an insect. As the reincarnation cycle continues the individual would reach a human reincarnation,* [*w*]*hich* [*sic*] *is like evolution because overall all species have evolved from smaller ancestors and through a century or so a new form of the species appears.*"

> [2] "*When I had to make decisions about whether to eat the domestic food from that country or to eat something I was familiar with. I was thinking about pros and cons of both sides and after deep, critical analysis I made a decision to eat domestic food from that, to me, new culture.*"

> [3] "[*I*]*n TOK we have to* [*use*] [*c*]*ritical thinking in some simple questions, that* [*sic*] *before we just answer in* [*sic*] *Yes or No. Example, "how can* [*you*] *tell when something is true and when something is wrong"?* [...] *it was hard for me to thinking* [*sic*] *deep into that question.*"

> [4] "*I've had a discussion with a few of my classmates when we talked about the morality about* [*sic*] *different religions and we critically analysed* [*sic*] *to prove our points to the other people.*"

Responses also included examples of increasing independence and ownership of situations.

> "*I thought critically when I first traveled without my parents. This was due to the freedom I had but at the same time I was on my own. I had to take all the choices in my trip and although it was a bit difficult I came along succes*[*s*]*fully.*"

## *Caring and Principled*

**Characteristics:**

- (passive) empathy or empathetic behaviour
- superficial gestures of empathy characterised by minor misconceptions or generalisations
- basic understanding of others' needs based on personal cultural view
- aid others to adapt to one's own culture
- simple demonstrations of care and support to others

In this category, student responses – related to the LPAs *caring* and *principled* – demonstrated empathetic and principled attitudes of a more observant or 'passive' nature (as opposed to proactive or interactive behaviours). For example, students engaged with others by listening [1] or demonstrated basic forms of acceptance and non-judgemental attitudes [2].

> [1]
> *"When my friends were concerned about the election of the president I listened to their concerns."*
>
> *"I think just listening and appreciating that there are different cultures [...]"*
>
> *"When I listen to what other people have to say. I think it mattered to them for other [sic] people who were not from their culture to hear [...] and I believe I helped them by listening to them."*
>
> [2]
> *"I respected my friend['s] P[h]ilipino culture"*
>
> *"[...] as we are an international school with people of many different cultures [...] we are accepting to [sic] all of them."*
>
> *"When I did not judge [M]uslim people, especially woman, in their choice of clothes."*

In addition to this, students sometimes described feelings of care and concern derived from a situation and sympathy for others [1], or simply presented situations in which they felt caring or principled without any further prompt or response [2].

> [1] *"I have a friend who's [sic] skin color was [sic] black. Almost every time I talked to him I could see that he has a very hard time sometimes. People were making fun of him[...] and acted rude to him. Sometimes I got very emotional and asked myself why people are doing things like that."*
>
> [2]
> *"When people say racist things to one another and someone is offended in the process."*

In other examples, students demonstrated empathetic and principled understanding and attitudes based on their personal cultural conventions, perceptions or experiences.

> *"There was a time when I was not as accustomed to most forms of Asian cuisine and did not enjoy them. [H]owever whenever I went over to my friends['] houses they would always serve me dishes from [their] own culture. I would make sure even if I didn't always enjoy the food to eat every last bite to not only show respect for the person making the meal but to also help me get more accustomed to different styles of food."*
>
> *"I ate the stuff on the plate that was presented to me no matter where [...] I am [sic]."*

Examples also included students aiding others' to understand, adapt and get along in the students' own culture and to behave accurately, often according to the students' cultural conventions.

> *"I felt caring when people from other countries asked me about my own culture. People from other cultures asked my about my country and traditions. I felt caring and principled when expressing these feelings because I was proud and [I was] also informing other people."*

> *"[W]hen I try to make people who come from other places comfortable with [sic] our culture."*

> *"A time I have been caring in a cross-cultural situation has been at school when an exchange student needed help finding their way to their classes and finding others to sit with and talk to at lunch and recess."*

Examples of empathy and ethical behaviours and attitudes illustrated a basic and sometimes superficial understanding of others' needs, which was influenced by students' own perceptions of others' needs.

> *"When I speak to people from different cultures [...] I tend to speak slower and pay more attention to what exact words I use so that I avoid saying anything possibly offensive or rude towards the person or their culture. [...]"*

Some examples showed that empathetic and ethical perceptions of situations may have been influenced by misconceptions or overgeneralisations.

> *"In my seminar history class on[e] student talked about how her dad got deported & I was sympathetic because other cultures often get deported because they come here illegally from other countries."*

Nevertheless, there were also examples of basic support to others illustrating simple behaviours of care and concern and a willingness to help.

> *"I [...] helped one of my Muslim friend[s] find a spot in our school for her to perform her daily prayers."*

> *"I was helping a lost boy to find his mother. It was not hard and he found his mom [...]"*

> *"I helped a man, from other [sic] culture, to set up [his] stall in our school, on the International day [...]"*

*Risk-taker (Willingness to Act)*

> **Characteristics:**
> - following the lead of others
> - helping out in existing initiatives

Examples for the LPA *risk-taker* (willingness to act) demonstrated moderate effort or risk (a singular event or generally low time investment), such as joining existing initiatives [1], donating [2], signing petitions [3] or sharing and re-sharing social media posts [4].

[1] *"I joined a charity committee in our school [...]."*

[2] *"I donated items needed to those affected by Hurricane Harvey."*

[3] *"I took action by petitioning against the removal of DACA."*

[4]
*"Whenever I see a post or story on Instagram about global climate change, for example, I share it. [...]"*

*"Abortion has been a very controversial topic recently but, I believe it should be the womans [sic] choice with whatever she wants to do so I raised awareness by sharing information to my social media. As I do have a bit of following, I aimed my posts at people who did not understand or were very small minded. As I am passionate about this, I wanted to assure everyone was well educated"*

Examples also included participating in events to sympathise with others [1], joining protests [2] or listening to (public) speeches on certain topics [3].

[1] *"I'm a straight woman. I took action by going to a Pride Parade with my LGBT+ friends."*

[2]
*"An example would be just a few months ago when I took part in a protest downtown regarding the genocide by the Burman [...] government against the Muslims of Rohingya."*

*"When I went to the climate strike, [...] I learnt even more about the important [sic] of looking after the environment and the consequences of our actions on others, due to the many speakers, who talked about how it had affected them. That experiences [sic] broadened my perspective on this issue and I was more aware that it affected individuals from an [I]ndigenous standpoint."*

[3] *"One time, I asked my father if I could come to his office since he was holding a presentation about how the United States relations [sic] could improve with [country name removed]."*

Several examples included joining debates or participating in debate teams [1]. Others included standing up for others or oneself [2]. While yet other examples illustrated small-scale environmental initiatives [3].

[1] *"I once was part of [a] debate in fighting for the rights of women in Arabic countries"*

[2] *"[S]omeone made a racist joke towards me and I stood up for myself*

[3]
*"[...] A change I made was changing my plastic toothbrush to a biodegradable one."*

*"[I] started having shorter showers to save water. [...]"*

*"[...] [When] I saw a video about global warming and how throwing plastic or trash to the ground can affect the world, I change [sic] my way of behaving. [Now] I try to be as careful as possible in that situations [sic], I throw the trash in the bin, I try no to use plastic straws and I stop doing a lot of things that made this problem worse."*

*"I decided to plant some trees next to my house."*

## Category 2: Self-focus and Implicit Rejection

**Characteristics:**
- self-centred, self-focussed, self-important
- suspicious, judgemental or stereotyping
- avoidance (of topics or intercultural connections)
- exclusion of others (who are different)

In this category a self-focussed (egocentric) view of the world dominated student responses. Implicit rejection and isolation of oneself from different or diverse others were the norm. The figure below illustrates how a person may understand themselves and their own importance in relation to others and the world, namely in an isolated bubble or in an unconnected way.
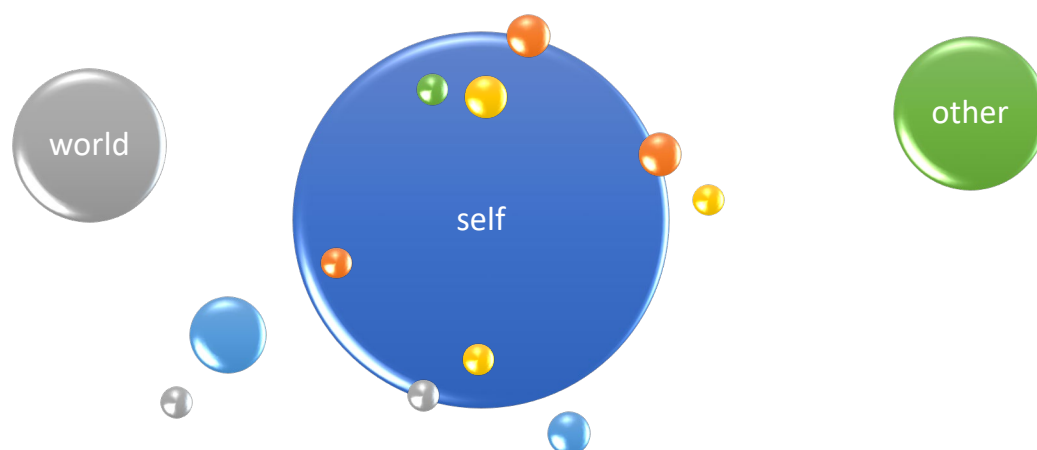
*Figure 17: Illustration of the category associated with self-focus and implicit rejection*

Responses in this category were characterised by implicit or passive rejection of ideas, behaviours, attitudes and actions relating to IM (including intercultural understanding, multilingualism, global engagement).

> *"[W]hen I was in Mauritius and the dilemma was the food."*

Given examples were often unilateral, self-centred and self-focussed with an overemphasis of one's own importance, views and ways. Notions of 'us versus them', stereotyping and bringing one's own perspectives across to others were prominent.

> *"[W]hen I was speaking with a group of my friends with [sic] different cultural backgrounds fighting for our cultural background"*

Furthermore, this level demonstrated suspicion, being on guard against others, a judgemental attitude or negative opinion of the 'other'.

> *"When I had to listen to a Muslim talk about his understanding of [G]od"*

Some responses also harboured major misconceptions, overgeneralisations, or stereotyping and a general lack of understanding.

> *"Participate in NGO for saving African people."*

Another feature included that of compliance because of expectations, rather than deliberation, for example being polite because it is expected ('I strongly disagree but must or was told to respect.'), respect because this is what one has to do [1], or 'false manifestations' of intercultural respect,

such as avoiding or not talking about a topic [2] because one perceives that this must insult others (as opposed to finding sensitive ways of handling a situation) or because one feels too uncomfortable [3].

> [1] *"When I make a trip to other parts of the world. People have [their] own culture and like it or not you have to be respectful with [sic] it."*

> [2] *"Don't discuss other [sic] person's culture."*

> *"I steered clear of a sensitive topic or taboo topic when talking to someone of a different culture. [...]"*

> [3] *"I was with people who were making racial or ethnic jokes [...] I ended up saying very little due to uncomfortability [sic]."*

It is noteworthy that themes that describe the LPAs were either not represented in this category or negatively represented across student responses.


## *Knowledgeable*

> **Characteristics:**
> - stereotyping
> - unidirectional, subjective or isolated knowledge (understanding is influenced by personal opinions; personal knowledge becomes universal truth)
> - major misconceptions

Responses to the LPA *knowledgeable* in this category were characterised by unidirectional, subjective or isolated knowledge leading to a sense of self-importance.

> *"I explained the significance of food from my culture to a friend."*

Knowledge was often isolated rather than contextual and derived from diverse sources and interactions. Acting knowledgeable in cross-cultural situations was influenced by personal opinions which were conceived of as universal truths.

*"Any time you are able to share your own culture with someone of [sic] a different ethnic group you have acted knowledgeably in a cross-cultural situation."*

*"In some of the classes I had in the past, I shared my cultural knowledge for the benefit of my class including my teachers."*

Stereotyping, misconceptions or misinterpretations of intercultural knowledge or lack of understanding on how to handle situations lead to avoidance or to a further reinforcement of notions of 'us versus them'.

*"[W]henever I am in a country which [sic] I know there was or there is racism, I try not to talk about it because I know it is a delicate subject."*

In some instances, lack of knowledge or misconceptions caused cultural barriers that were unsurmountable.

*"When I travelled to China [...] there was such a cultural barrier that I didn't know how to act around them and they didn't know how to act around me. [...]"*

*Open-minded*

> **Characteristics:**
> - obligation towards respect
> - implicit or passive rejection of others
> - opinions and negative attitudes impact the view of the 'other' or intercultural situations

Typical for responses for the LPA *open-minded* in this category was a sense of having to accept or respect others even when one might disagree [1]. This means that there was a sense of obligation towards respect or acceptance mixed with notions of passive or implicit rejection or burden [2] as opposed to actual open-mindedness (i.e. a false sense of respect). At times, negative opinions or attitudes impacted the response to others or to the intercultural situation students were in [3].

[1] *"People from [E]astern countries have a very different point of view about marriage and gender roles. Even though I strongly disagree with that view it must be respected."*

[2] *"When I was in Egypt I had to accept that there were some foods I could not eat, such as ham or pork. Also, I don't remember at what time of the day, all the people would stop*

*what they were doing at the moment to pray and I had to accept that and wait for them to stop praying."*

[3] *"When I was to teach [E]nglish to new immigrants at the Open Door Society. I had to respect the immigrant's culture and be openminded with their low [E]nglish level."*

*Communicator (Forms of Communication)*

> **Characteristics:**
> - unidirectional use of language and communication
> - 'making oneself understood'
> - monolingual and monomodal
> - misconceptions and misunderstandings

Examples for the LPA *communicator* in this category were characterised by a unidirectional use of language [1] with the purpose of making oneself understood [2] as opposed to any form of dialogue. Furthermore, examples were limited to monolingual [3] and monomodal communication [4]. Often there was a presumption communicated, that others should speak English or know 'my language'.

[1] *"When speaking with people who don't know English I make hand jesters [sic] to what I need."*

[2] *"Situations like this occur often [and] mostly I point at the object or show the action which I'm trying to name."*

[3] *"I have always used English for communication."*

[4] *"I do not think I have used any other form of communication o[r] expression other than speaking."*

*Critical Thinking (Inquirer, Thinker, Reflective)*

> **Characteristics:**
> - unidirectional thinking and reflection
> - limited inquiry and lack of use of sources
> - limited self-sufficient and independent critical thinking
> - suspicion, negative opinions and attitudes influence critical thinking and reflections
> - avoidance and misrepresentation

Student responses for the LPAs associated with *critical thinking* (i.e. *inquirer, thinker, reflective*) in this category showed limited inquiry and use of sources and was typically characterised by unidirectional thinking and reflection [1]. Limited self-sufficient and independent critical thinking was exemplified through stereotyping and generalisations [2]. Critical topics or topics of potential conflict were avoided or minimized due to (perceived) cultural sensitivities and there was a general suspicion and misrepresentation of the perceptions and attitudes of others [3].

> [1] *"When I was shopping in a local market in Egypt I heard all the people shouting and making big gestures with their hands. When I got to buy something my guide and the local person started to shout. I first thought that they were being rude with each other about something […] in the past, but then I realized that it's just their way of buying. I was scared and was about to tell them to cal[m] down but that would not solve anything as they were just arguing over the price. This situation really shocked me."*

> [2] *"When you think about the reality that [sic] [L]atinoamerican [sic] people live, and how people from Europe live. It is a constant battle between cultures, since [L]atinoamericana [sic] are often more close minded and repressed, while European people are often more open minded. […]"*

> [3] *"A time when I used critical thinking was […] when I had to communicate ideas but I needed to form my speech correctly or it would come out the wrong way. Everything I say is open to interpretation by anyone, so I have to make sure that the way that they interpret what [I']m saying is not in a bad way."*

*Caring and Principled*

> **Characteristics:**
> - self-centred, self-emersed
> - 'us versus them' mentality
> - obligated (required) behaviours
> - negative opinions, attitudes and judgements of others

Responses for the LPAs *caring* and *principled* in this category reflected behaviours that were down to obligation or convention [1] rather than actual respect for others. Furthermore, examples showed a self-emersed approach to interactions [2] rather than genuine care or respect for someone.

[1] *"Refraining from saying derogatory terms"*

[2] *"Yes, maybe ones [sic] when I made my [J]ewish friend understand my culture [...]."*

*Risk-taker (Willingness to Act)*

> **Characteristics:**
> - guided by overgeneralisations of a situation
> - self-serving or preoccupied with one's own interests

Examples of 'willingness to act' were often characterised by simplistic and overgeneralised views [1], lack of knowledge or unclear understanding of situations [2], and somewhat self-centred and self-serving [3].

[1] *"Participate in NGO for saving African people"*

[2] *"I signed [D]aca"*

[3] *"I participated in eliminating hunger by playing games at free rice dot com. Where [sic] the more points you earn the more rice a person in need gets."*

## Category 1: Rejection and Prejudice

This category was allocated to any responses that indicated deliberate rejection of the question or that were negatively opinionated or attitudinal. For this allocation, a typed response needed to be given in which a student wrote in a deliberately negative and superficial fashion (as opposed to 'no', n/a, etc.). The level included responses of prejudice, attitudes of 'us versus them', open rejection and cases where a student rejects the idea of interacting in a cross-cultural situation, for example:

> "I [*have*] *never been put in a cross-cultural situation where I needed to be knowledgeable. If I ever am in the future I don't think I would be able to show a lot of knowledge.*"

> "*I made the person learn their lesson.*"

> "*In Africa "kissing your teeth" is a screeching sound you make with your teeth, you usually make this sound to show that you are angry. I always do this in school as I don't necessarily want to swear at teachers.*"

## Category 0 versus Non-responses

Any non-responses, meaning blanks, were labelled as non-responses and filtered out before the analysis. When responses or examples were given, but could not be allocated to a level, because there was not enough (identifying) information or the response was irrelevant to the question, a level '0' was allocated. Where a not-valid response was given, for example 'no', 'none', 'n/a', 'yes', 'I don't know', 'I'm not sure', 'I can't remember', 'nothing comes to mind', [jibberish], a level '0' was allocated. In summary, responses were allocated '0' if they were either non-committal, didn't offer enough information, or indicated that the student did not engage specifically with the question either because they couldn't think of an example, or because they didn't understand the question. Due to the lack of sufficient information, no effective allocation into one of the 5 levels could be made. Responses that could not be allocated due to lack of information, for example in the category *knowledgeable*, include:

> "*Every time I go on holiday, or move countries, I acted* [*sic*] *knowledgeable in cross-cultural situation*[*s*]*.*"

> "*I was invited to a friends house, and when I got there, everybody took their shoes off at the door and put them on a shelf. Yeah.*"

In both examples there is not enough information to understand how the student acted knowledgeable within the context. Especially the second example may suggest a type of rejection

of the situation, but since it is not clear or explicit an allocation to a level was not made to avoid overinterpretation.

## Summary

This chapter introduced several different response types that emerged from student examples. These different response types resulted in the identification of five categories. Category 1 responses were characterised by a rejection of any thoughts or actions associated with the LPAs and/or cross-cultural interactions. Category 2 responses demonstrated self-centred response patterns with a subjective or implicit type of rejection. Categories 3-5 were constructively engaging with the characteristics of the LPAs in cross-cultural situations. Category 3 responses showed either a passive or functional engagement and were still indicative of sometimes major misconceptions. Category 4 examples demonstrated a contextual and proactive engagement with only minor misconceptions, but occasional indications of superficial understanding or engagement. Category 5 responses signified a transcendental or transformative engagement in cross-cultural situations. Another category ('0') was assigned to examples or responses that could not be allocated to any of the 5 categories as they were either not answering a question or did not hold enough information that would allow for the effective allocation.

# Chapter 8: Descriptive Analysis of Responses across Learner Profile Attributes

## Introduction

Descriptive analysis has been used to establish the frequency of categories (identified in chapter seven) and themes (identified in chapter six). In this way, qualitative data were quantified to identify and describe trends that emerged from students' written responses between pre-test and post-test and to then triangulate findings from the quantitative analysis (chapter five) with findings from the qualitative analysis (chapters six and seven) in answer to research questions one[58] and two[59]. This approach allowed for qualitative data to be connected with quantitative findings, to provide additional details in answer to these research questions, and to gain a deeper and more nuanced understanding of the processes and mechanisms at work in the development of international mindedness throughout the two-year DP programme. While the triangulation of quantitative and qualitative data took place at the interpretation stage in the discussion of chapter nine, this chapter presents the findings that emerged from the descriptive analysis of the qualitative data. The chapter will introduce these findings in two sections as follows:

- Section 1:

    Section one presents the findings from the descriptive analysis of responses of pre-test and post-test based on response categories. Results were compared for the following groups:

    *General trends[60]:*
    - Candidate status, i.e. 'Diploma candidates'[61] versus 'Certificate candidates'[62]

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[58] Is there a difference in IM in students taking the DP at an early point of the programme versus the endpoint of the programme?

[59] Is there a difference in the development of IM between DP Arts-students and DP Non-Arts-students?

[60] In the lists below, the title of the groups is indicated by quotation marks. However, for reasons of clarity and flow these quotation marks are not used within the main text and slight variations of these titles are used for better readability.

[61] Students who take the full Diploma, meaning a selection of HL and SL courses from six subject groups and the core, including TOK, CAS and EE.

[62] Students who take a selection of Diploma courses, but do not complete the full Diploma as described above.

- Prior IB education (PYP or MYP), i.e. students who had access to an IB education prior to taking the DP ('Prior IB' students) versus students who had no access to an IB education prior to taking the DP ('No prior IB' students)
- School type, i.e. students from 'private' versus 'state/public' schools
- Cultural or ethnic background, i.e. 'diverse' versus 'monocultural' backgrounds
- Gender, i.e. 'female' versus 'male' students

*Trends in relation to Arts choices:*
- DP Arts choice, i.e. 'DP Arts-students' versus 'DP Non-Arts-students'
- Prior Arts education, i.e. students who took Arts prior to taking the DP ('Prior Arts' students) versus students who took no Arts prior to taking the DP ('No prior Arts' students)
- Arts education outside the DP, i.e. students who took Arts outside the DP ('Arts outside DP') versus students who took no Arts outside the DP ('No Arts outside DP')
- any other LPA specific findings where applicable

- Section 2:

    Section two presents the findings from the descriptive analysis of responses of 'DP Arts-students' versus 'DP Non-Arts-students' based on the frequency of
    - themes per LPA across pre-test and post-test,
    - themes across LPAs, and
    - themes of interconnectedness (i.e. 'intrapersonal connectedness', 'interpersonal connectedness', 'global connectedness') across pre-test and post-test.

The written presentation of findings is accompanied by graphic representations (figures). The accompanying tables with data can be found in the appendices as indicated in the respective footnotes.

## Section 1: Categories

In this section, findings from the analysis of student examples based on assigned response categories will be presented. For each LPA, results from pre- and post-test will be compared across general groups as well as Arts-specific groups (see above). For reasons of clarity the results between pre- and post-tests are given as mean scores or as relative frequencies in percentages. An increase in mean score means an increase in frequency of response categories with higher numbers (e.g. category 4 or 5). The categories are representative of the examples given by students and mark trends and characteristics within the student responses rather than levels of achievement. The analysis was conducted for the pre-test and post-test of the entire cohort, followed by a pre- and post-test comparison of specific groups (i.e. 'DP Arts-students'/'DP Non-Arts-students').

**Knowledgeable**

In the following section, the findings for the LPA *knowledgeable* will be introduced. Main findings include a general upward trend in categories 4 and 5 between pre- and post-test and a greater increase of mean scores among Arts-students regardless of their type of engagement with the Arts.

*General Trends*

A total of 176 students gave valid responses or examples to the question on the LPA *knowledgeable* in the open-ended survey, meaning responses that could be scored with a category from 1 to 5. Of these responses, 117 were given in the pre-test and 59[63] were given in the post-test. In general, there was an upward trend with students scoring lower in the pre-test (mean 3.53) and higher in the post-test (mean 3.95),[64] meaning responses of categories 4 and 5 increased whereas responses of categories 1–3 decreased from pre- to post-test (figure 18). In addition, the lowest response categories were 1 in the pre-test and 3 in the post-test.[65]

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[63] From this point onwards, the number of responses will be indicated by the letter N. For example, using the numbers of responses in this section, the total number of student responses was N176, the number of responses in the pre-test was N117, and the number of responses in the post-test was N59.
[64] Appendix 11: 'Knowledgeable' – Overall responses
[65] Appendix 11: 'Knowledgeable' – Overall responses: Relative frequency of responses per category (in percent)
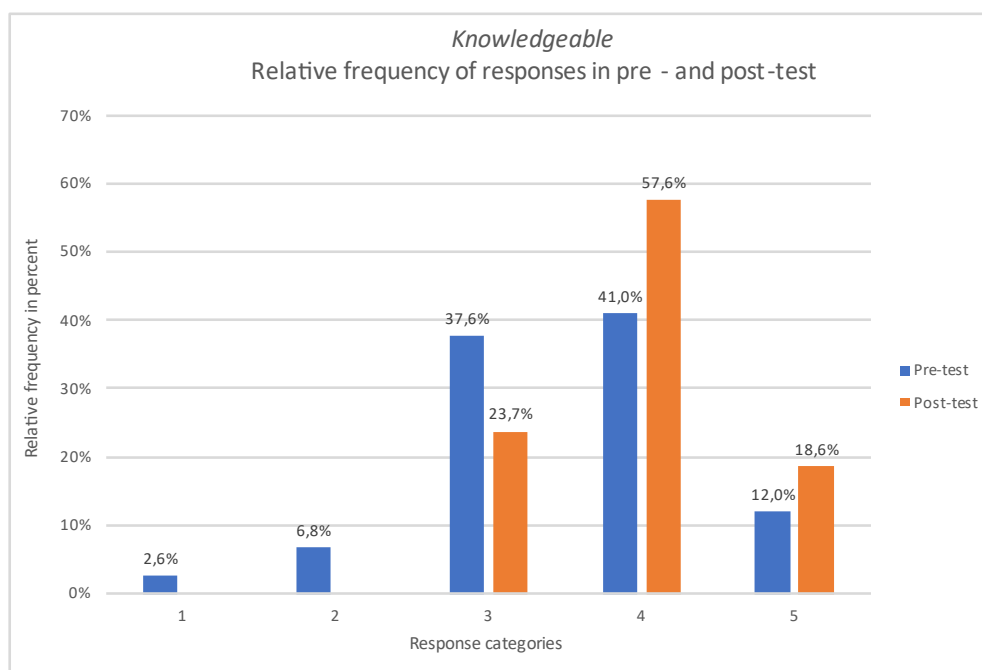
*Figure 18: Overall – Response categories for LPA 'knowledgeable'*

When comparing Diploma candidates with Certificate candidates, there was little difference in the pre-test between frequency of responses of Diploma candidates (N96) (mean 3.58) Certificate candidates (N14) (mean 3.50). The same range of response categories was represented in the examples of both groups, namely categories 1–5. In the post-test, Diploma students (N53) showed a slightly stronger up-ward trend (mean 3.98; response categories: 3–5) in comparison to (only 6) Certificate candidates whose responses generated a mean of 3.67 (response categories represented: 3–4).[66] With regards to students who had an IB education prior to taking the DP versus those who did not have a prior IB education it is interesting to note that students with a prior IB education (N38) had a higher mean score in the pre-test (mean 3.68), while those with no prior IB education (N63) started with a lower mean-score (mean 3.35). In the post-test, this difference had evened out: students of both groups had similar means (Prior IB [N22]: mean 3.95; No prior IB [N32]: mean 3.91) and the same categories were represented in student examples from both groups, i.e. 1–5 in the pre-test and 3–5 in the post-test.[67]  The same trend was seen with students from private schools versus students from state or public schools. In the pre-test, students from private schools

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[66] Appendix 11: 'Knowledgeable' – Candidate status
[67] Appendix 11: 'Knowledgeable' – Prior IB

(N98) had a mean score of 3.60 with examples in categories between 1 and 5 while students from state/public schools (N18) had a lower mean score of 3.06 with response categories between 1 and 4. However, in the post-test students from private schools (N45) had a similar mean score (mean 3.96) compared to students from state/public schools (N14; mean 3.93) with examples from both groups being representative of categories 3–5.[68] Figure 19 below shows the mean scores of the responses of the three groups discussed above. The graphs show the trends in the three groups with the Certificate candidates scoring lower in pre- and post-tests, meaning they were not able to fully even out the difference, given that they did not receive the full educational range a Diploma has to offer. Students with no prior IB education or those in state/public schools, however, showed similar post-test results regardless of their pre-test scores in this LPA.
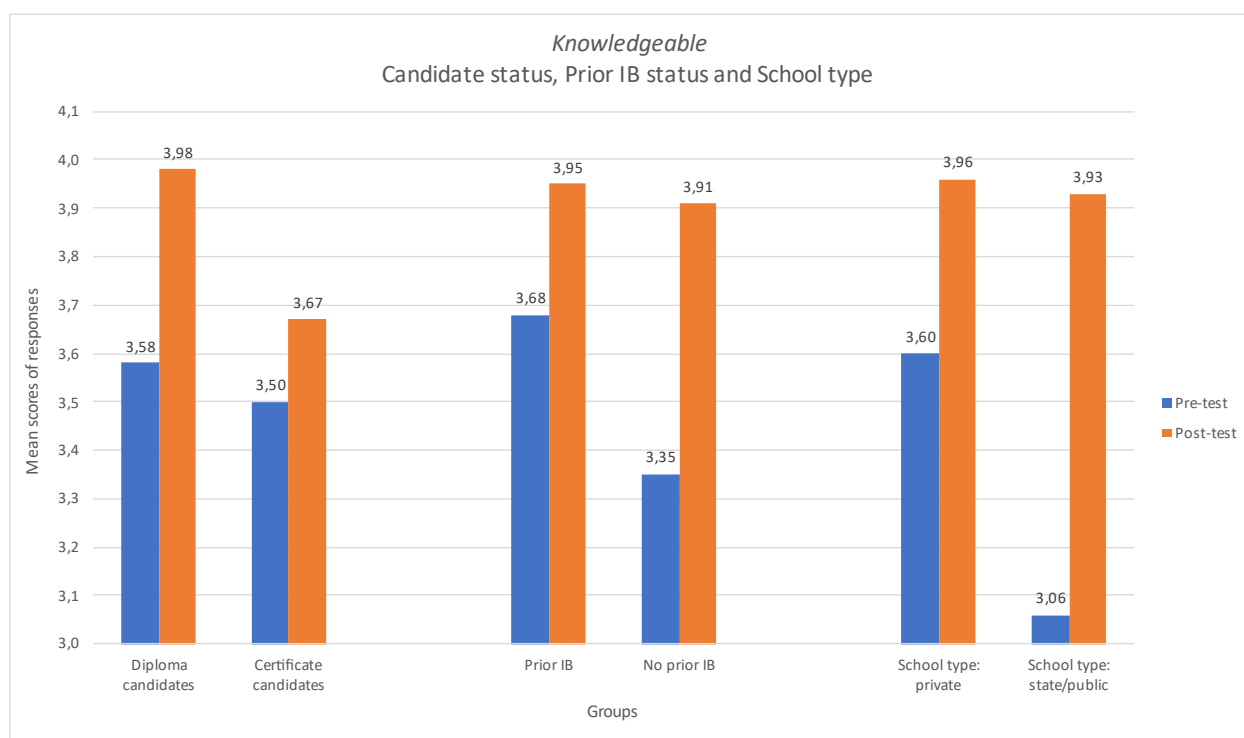


*Figure 19: Mean scores of responses: Candidate status, Prior IB and School type – LPA 'knowledgeable'*

As seen in figure 20, all students regardless of cultural background or gender, demonstrated an increasing trend between pre- and post-test although the increase was greater in the monocultural students group and the female students group:[69]

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[68] Appendix 11: 'Knowledgeable' – School type
[69] Appendix 11: 'Knowledgeable' – Cultural background and Gender

- Diverse cultural background: pre-test (N75) mean 3.61, categories 1-5; post-test (N31) mean 3.90, categories 3-5

- Monocultural background: pre-test (N37) mean 3.46, categories 2-5; post-test (N28) mean 4.00, categories 3-5

- Female students: pre-test (N67) mean 3.46, categories 1-5; post-test (N39) mean 4.03, categories 3-5

- Male students: pre-test (N48) mean 3.58, categories 1-5; post-test (N20) mean 3.80, categories 3-5
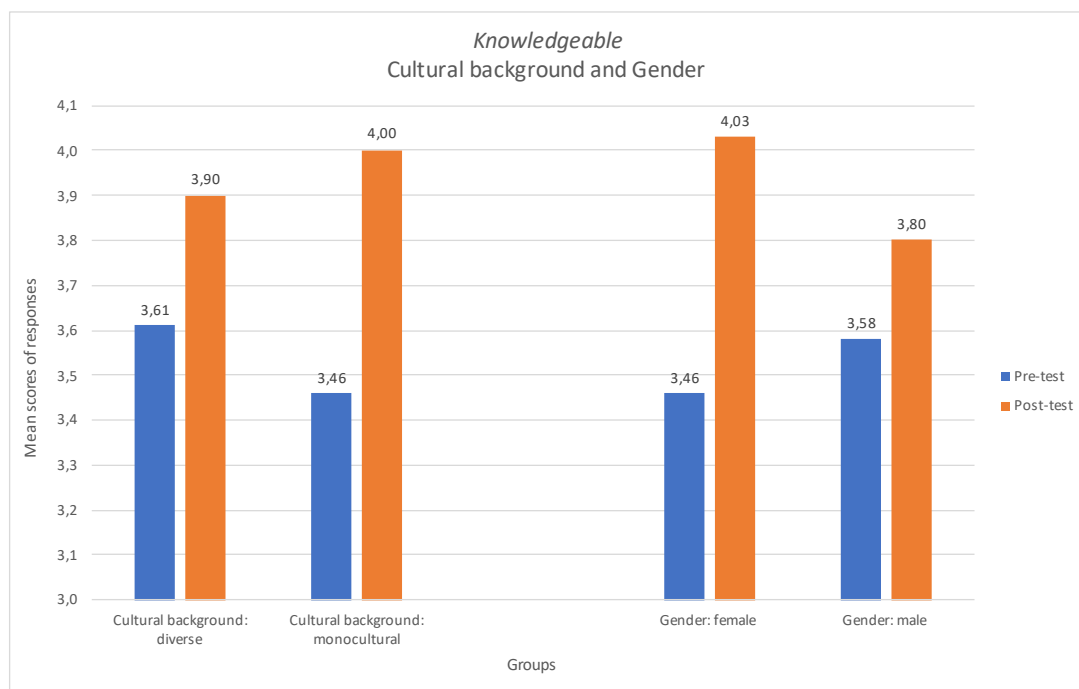
*Figure 20: Mean scores of responses: Cultural background and Gender – LPA 'knowledgeable'*

## *Trends in Responses of Arts-students versus Non-Arts-students*

Pre-test responses of students who opted for an Arts subject in the DP (N61) showed a lower mean score (mean 3.41) compared to those students (N56) who did not opt for an Arts subject in the DP (mean 3.66). However, in the post-test the DP Arts-students (N28) had reached a similar mean score (mean 3.96) as their peers (N31) who did not take a DP Arts course (mean 3.94). This shows that despite the lower mean score in the pre-test, DP Arts-students responded in a similar way as students who did not opt for a DP Arts course in the post-test. Likewise, students who engaged in Arts education prior to taking the DP (N92) gave examples that represented categories which

generated a lower mean score (mean 3.49) than those students who did not take an Arts education prior to taking the DP (N24; mean 3.63). However, in the post-test students who did take an Arts education prior to the DP (N43) responded with examples representative of categories that generated a greater mean score (mean 4.00) compared to those peers who did not engage in Arts education prior to taking the DP (N16; mean 3.81). The third group of students who took Arts outside the DP versus those who did not is especially interesting. In the pre-test, students who did engage in Arts education outside of the DP (N62) reached a similar mean score (mean 3.50) as those students who did not engage with any Arts outside the DP (N55; mean 3.56). However, in the post-test students who did take Arts outside the DP (N38) reached a mean score of 4.08 in comparison to those students who did not engage with any Arts outside the DP (N21) who reached a mean score of 3.71.[70] As figure 21 shows, there was a trend that students who engaged in Arts education in one form or another showed a greater increase in mean scores.
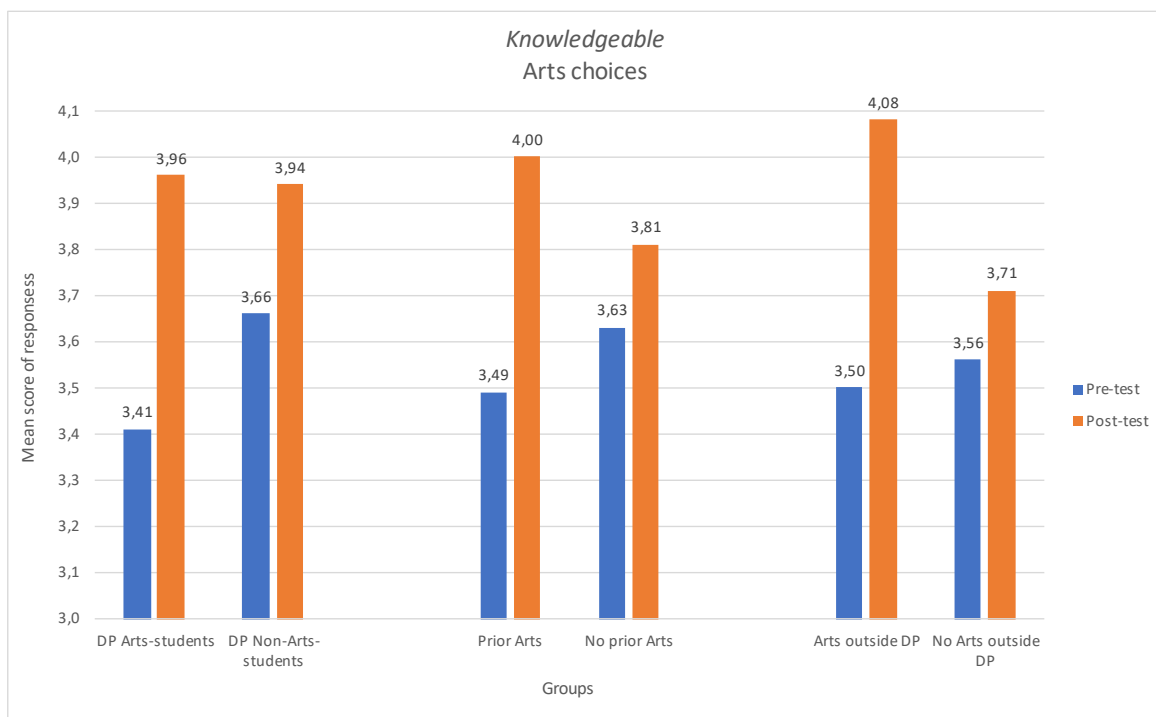


*Figure 21: Mean scores of responses: Arts choices – LPA 'knowledgeable'*

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[70] Appendix 11: 'Knowledgeable' – Arts versus No Arts

**Open-mindedness**

In the following section, the findings for the LPA *open-minded* will be introduced. Main findings included that overall, there is only a slight increase in mean scores which is reflected in mean scores of all general groups with the exception of state/public school students who showed a greater increase than other groups and decreases in mean scores of Certificate and male students. Furthermore, mean scores increased for all Arts-students groups while there was minor to no change in the DP Non-Arts-students group and decreases in the groups No prior Arts and No Arts outside DP.

*General Trends*

For the question on the LPA *open-minded* a total of 210 students gave valid responses. 143 responses were given in the pre-test and 67 were given in the post-test. There was only a slight upward trend in students with a mean of 3.59 in the pre-test and a slightly higher mean of 3.66 in the post-test. In the pre-test the lowest response category was '1' while this lowest response category in the post-test was '2'.[71] Figure 22 shows the distribution of responses across categories. While there was a decreasing trend in category 1 (-1.4%), there was an (unexpected) increase in category 2 responses (+4.6%). The trends in categories 3 and 4 were as expected: category 3 responses decreased (-13.5%) while category 4 responses increased (+11.7%). There was also a slight decreasing trend in category 5 responses (-1.5%).[72]

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[71] Appendix 11: 'Open-minded' – Overall responses
[72] Appendix 11: 'Open-minded' – Overall responses: Relative frequency of responses per category (in percent)
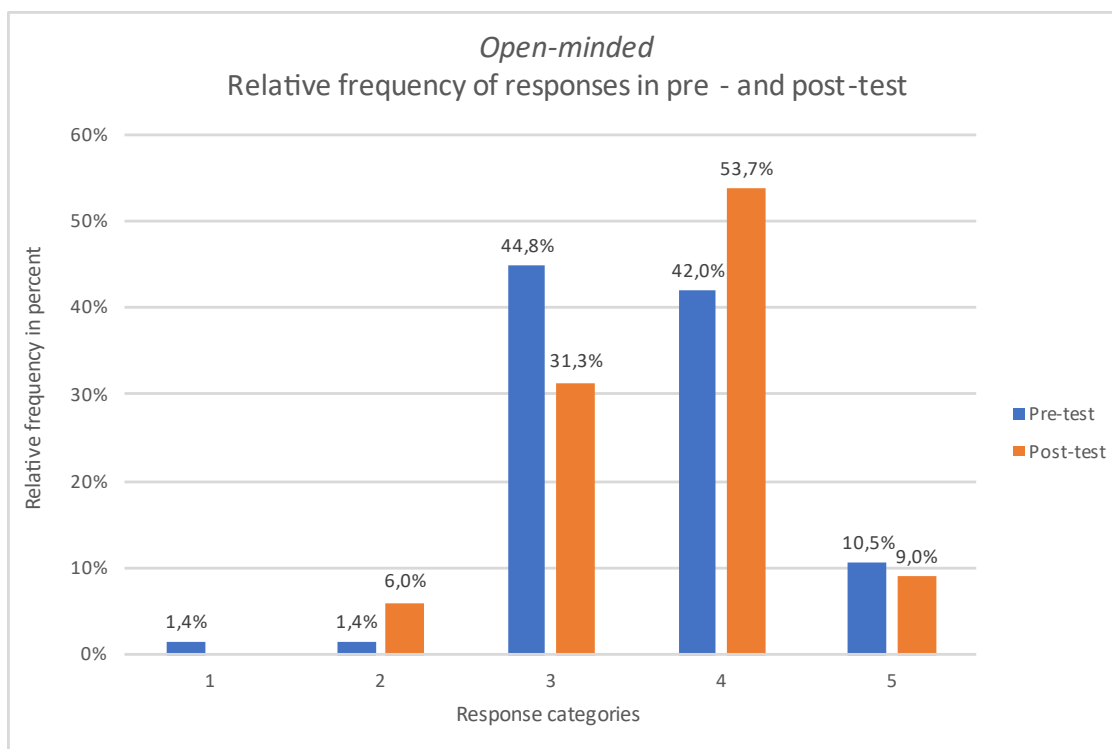
*Figure 22: Overall – Response categories for LPA 'open-minded'*

When comparing Diploma candidates with Certificate candidates, Diploma candidates (N115) scored slightly higher in the pre-test (mean 3.66) with a distribution of responses across categories 2-5, compared to Certificate candidates (N20) with a mean of 3.45 and a distribution of responses across categories from 1 to 5. In the post-test, the responses of Diploma candidates (N58) showed a small up-ward trend (mean 3.72) with response categories remaining at 2–5, in comparison to the responses of (only nine) Certificate candidates whose mean score decreased to 3.22 with response categories of 3–4.[73] Students with a Prior IB education (N48) and students with No prior IB education (N76) had a similar mean score in the pre-test (Prior IB: mean 3.54, No prior IB: mean 3.55). Compared to the pre-test, students with prior IB education (N20) had increased their mean score from 3.54 to 3.70, while the mean score of students with No prior IB education only slightly increased from 3.55 to 3.57. For both groups, the same categories were represented in student examples in the pre-test (1–5) and in the post-test (3–5).[74] However, a greater increase of mean scores was demonstrated by students from state/public schools in comparison to students

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[73] Appendix 11: 'Open-minded' – Candidate status
[74] Appendix 11: 'Open-minded' – Prior IB

from private schools between pre- and post-test. In the pre-test, students from private schools (N122) had a mean score of 3.66 (range of categories: 2–5) while students from state/public schools (N20) had a mean score of 3.10 (range of categories: 1–4). In the post-test, however, students from private schools (N48) scored a mean of 3.73 (range of categories: 2–5) while students from state/public schools (N18) scored a mean of 3.56 (range of categories: 3–5).[75] Figure 23 below illustrates the mean scores of the responses of the three groups discussed above. The graphs show an increase between pre- and post-test means in all groups (although minimal at time as seen in the example of students without prior IB education), except for Certificate candidates whose mean scores decreased between pre- and post-test.
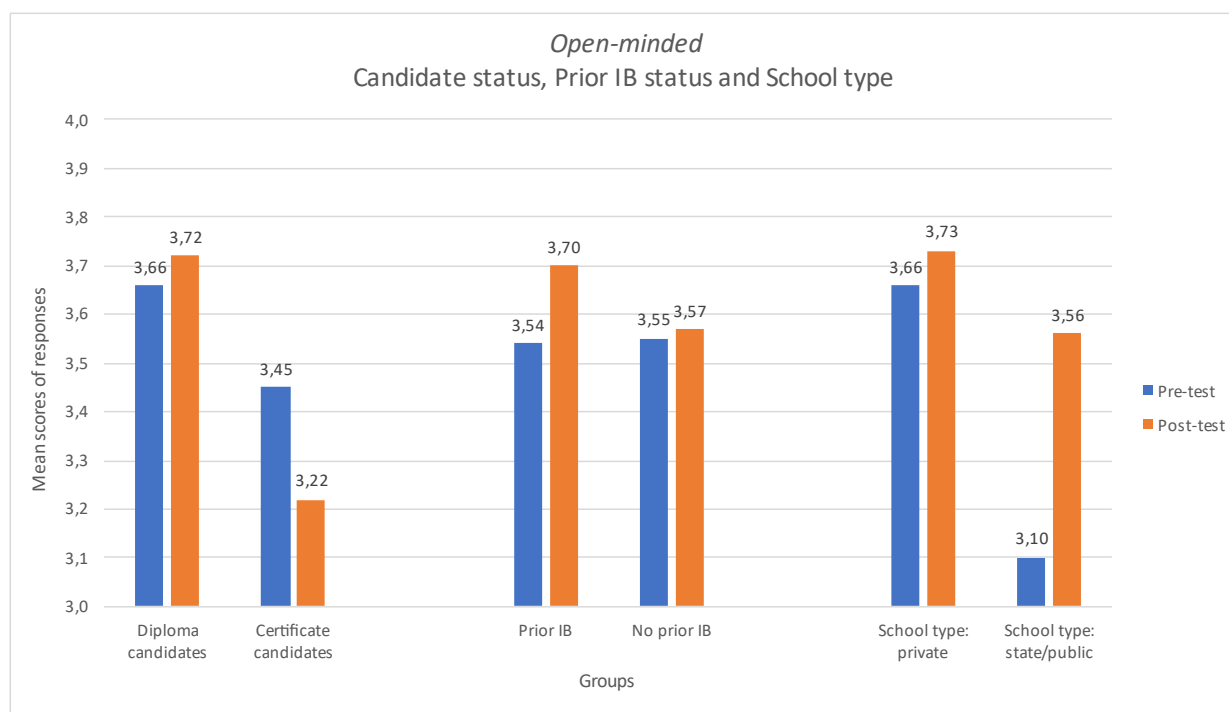


*Figure 23: Mean scores of responses: Candidate status, Prior IB and School type – LPA 'open-minded'*

When comparing students with diverse cultural backgrounds and students from monocultural backgrounds, students had similar mean scores in the pre-test, for example students with diverse cultural backgrounds (N91) scored a mean of 3.57 with responses across categories 1–5 while students from monocultural backgrounds (N46) scored a mean of 3.61 with responses across categories 2-5. In the post-test students with diverse cultural backgrounds (N38) scored a mean of

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[75] Appendix 11: 'Open-minded' –School type

3.68 with responses across categories 2–5, while students from monocultural backgrounds (N29) scored a mean of 3.62, also across response categories 2-5.[76] Furthermore, in the pre-test, female students (N83) scored slightly lower (mean 3.55) than male students (N57, mean 3.60). However, in the post-test, female students (N45) increased their mean score to 3.76 while the mean score of male students (N22) decreased to 3.45. For both groups (female and male) responses were given in the pre-test in categories 1–5 and in the post-test in categories 2–5.[77] Figure 24 below shows the mean scores in pre- and post-test of students grouped by cultural background and by gender.
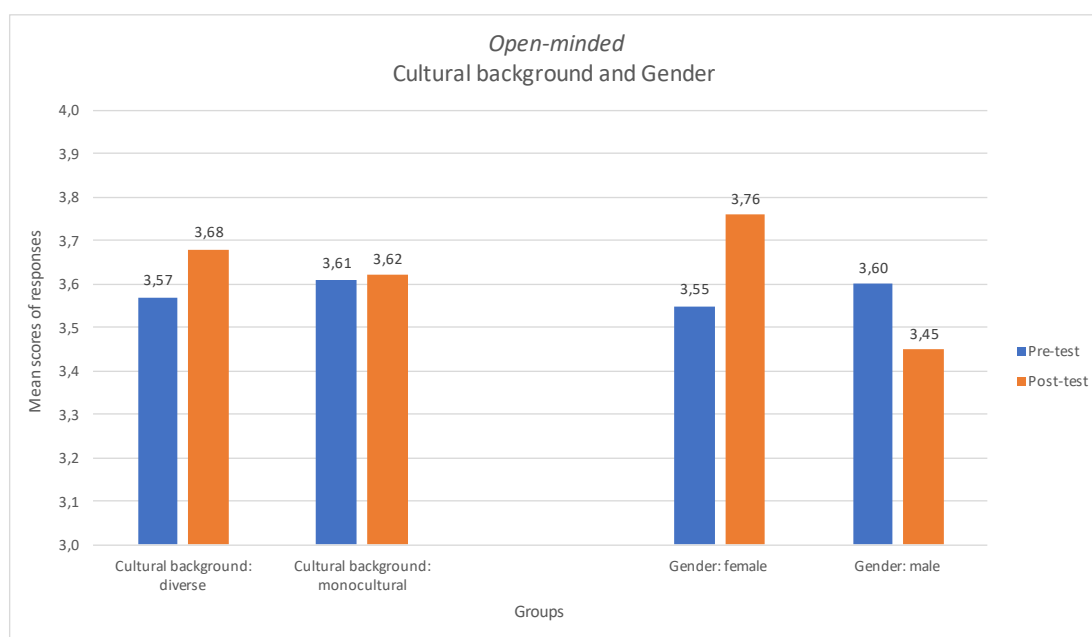


*Figure 24: Mean scores of responses: Cultural background and Gender - LPA 'open-minded'*

### *Trends in Responses of Arts-students versus Non-Arts-students*

Pre-test responses of students who opted for an Arts subject in the DP (N78) showed a higher mean score (mean 3.63) with a range of response categories from 3 to 5 compared to those students (N65) who did not opt for an Arts subject in the DP (mean 3.54; category response range: 1–5). Furthermore, in the post-test DP Arts-students (N32) showed an increased mean score (mean 3.75; category response range: 2–5) while the DP Non-Arts-students (N35) only showed a slight increase in mean scores (mean 3.57; category response range: 2–5) in the post-test. Students who engaged

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[76] Appendix 11: 'Open-minded' – Cultural background
[77] Appendix 11: 'Open-minded' – Gender

in Arts education prior to taking the DP (N108) gave examples that represented categories which generated a lower mean score (mean 3.54) than those students (N34) who did not take an Arts education prior to taking the DP (mean 3.71). However, in the post-test students who did take an Arts education prior to the DP (N48) responded with examples representative of categories that increased the mean score (mean 3.71) while the mean score of the examples of students who did not engage in Arts education prior to taking the DP (N19) decreased to 3.53. The represented response categories between the two groups were similar in pre-test (categories 1–5) and post-test (categories 2–5). In the third group ('Arts outside DP' versus 'No Arts outside DP') students who took Arts outside the DP showed an increasing trend of scores (pre-test: N79, mean 3.59; post-test: N39, mean 3.85) while those who did not take any Arts education outside of the DP showed a decreasing trend of scores (pre-test [N64] mean 3.58; post-test: N28, mean 3.39). As in the previous group, the represented response categories between these two groups were similar in pre-test (categories 1–5) and post-test (categories 2–5).[78] As figure 25 shows, students who engaged in Arts education in one form or another showed an increasing trend in mean scores while those in the comparison groups showed either a smaller increase (see DP Non-Arts-students) or a decreasing trend in mean scores (see groups of students with No prior Arts and No Arts outside DP).
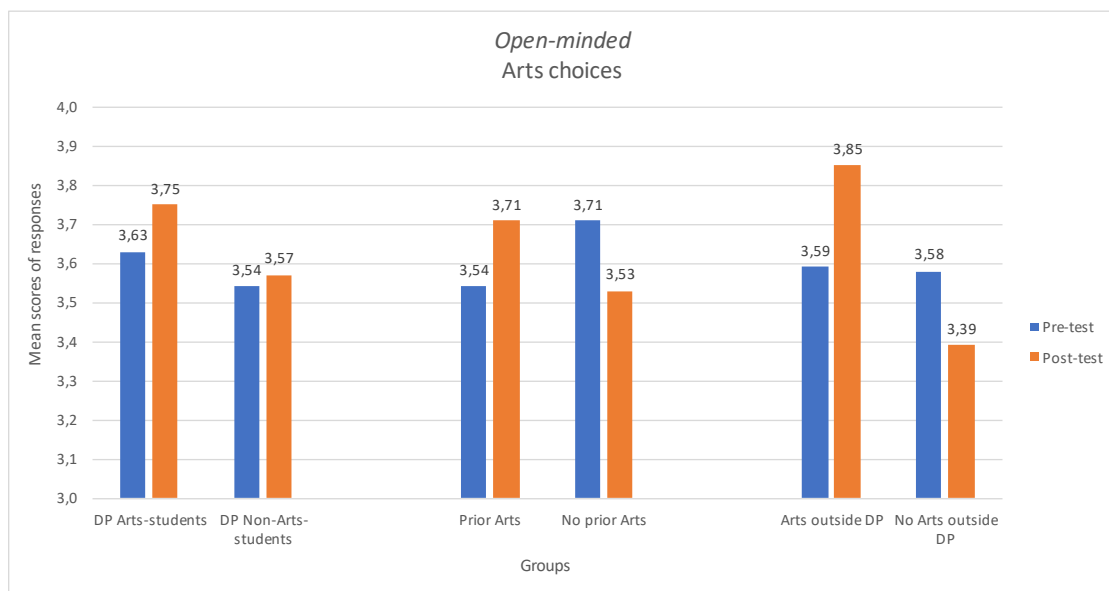


*Figure 25: Mean scores of responses: Arts choices – LPA 'open-minded'*

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[78] Appendix 11: 'Open-minded' – Arts versus No Arts

**Communicator (Forms of Communication)**

In the following section, the findings for the LPA *communicator* will be introduced. Main findings included a predominant use of body language followed by the Arts as an alternative form of communication. A third dominant theme was the use of verbal forms (language) as an alternative form of communication demonstrating the importance of language to students when thinking of themselves as communicators. In general, there was only a slight upwards trend of means between pre- and post-test and a lack of increase of category 4 responses.

In the question regarding the LPA *communicator* students were asked about forms of communication and expression they use when they can't express themselves through language. The aim of the question was to gain additional insight into one specific aspect of the LPA *communicator*, namely that of multimodal communication. In response to this question, students offered a variety of forms of communication. The most frequently mentioned forms related to physical communication or non-verbal communication through the body with a total of 236 mentions, including:

- **104 times**

  Signing and hand gestures (signing, sign language, pointing, etc.)

- **56 times**

  Body language (hug, wave, touch, etc.)

- **38 times**

  Emotions through facial expressions (winking, smiling, nodding, etc.)

- **19 times**

  Physical gestures to support language (cues, arm movements, etc.)

- **11 times**

  Expressions of respect (non-verbal greetings, manners and mannerisms associated with different cultures, appearance, etc.)

- **8 times**

  Miming and mimicking

The second most frequent category was the use of the Arts with 50 mentions which included:

- **20 times**

  Visual Arts, painting and drawing

- **11 times**

  Dance

- **9 times**

  Theatre, drama and acting

- **6 times**

  Music and singing

- **4 times**

  Art

It is interesting that the third group, use of language, was mentioned quite often (49 times). Even though the question asked for alternative forms of communication when language can't be used for expression, language still featured strongly in student responses. The responses described the following uses:

- **16 times**

  Various uses of language (e.g. mixing languages, use of a second, alternative or other common language(s), multilingualism)

- **11 times**

  Adjustments in language to meet someone else's needs (e.g. slower pace, simpler words, limiting vocabulary, choice of formal versus informal language, use/non-use of slang)

- **9 times**

  Desscribing, explaining and elaborating

- **6 times**

  Writing (e.g. writing about something in poems, chapters, or essays and/or writing something out)

- **5 times**

  Language as the only way for communication including English as the only way to communicate (monolingualism)

- **2 times**

  Intonation and inflection (e.g. tone of voice or speech)


Furthermore, the following forms of communication were mentioned:

- **36 times**

  Use of technology (e.g. translation apps, social media, internet tools, etc.)

- **32 times**

  Symbolism (e.g. visuals, images, photos, numbers, scales with images, emojis, objects)

- **14 times**

  Sounds (e.g. onomatopoeia or phonetic representation)

- **7 times**

  Games and sports (e.g. tactics)

- **6 times**

  Help and (inter)action (e.g. helping others, spending time, acting on one's word, showing compassion)

- **7 times**

  Other or unidentified
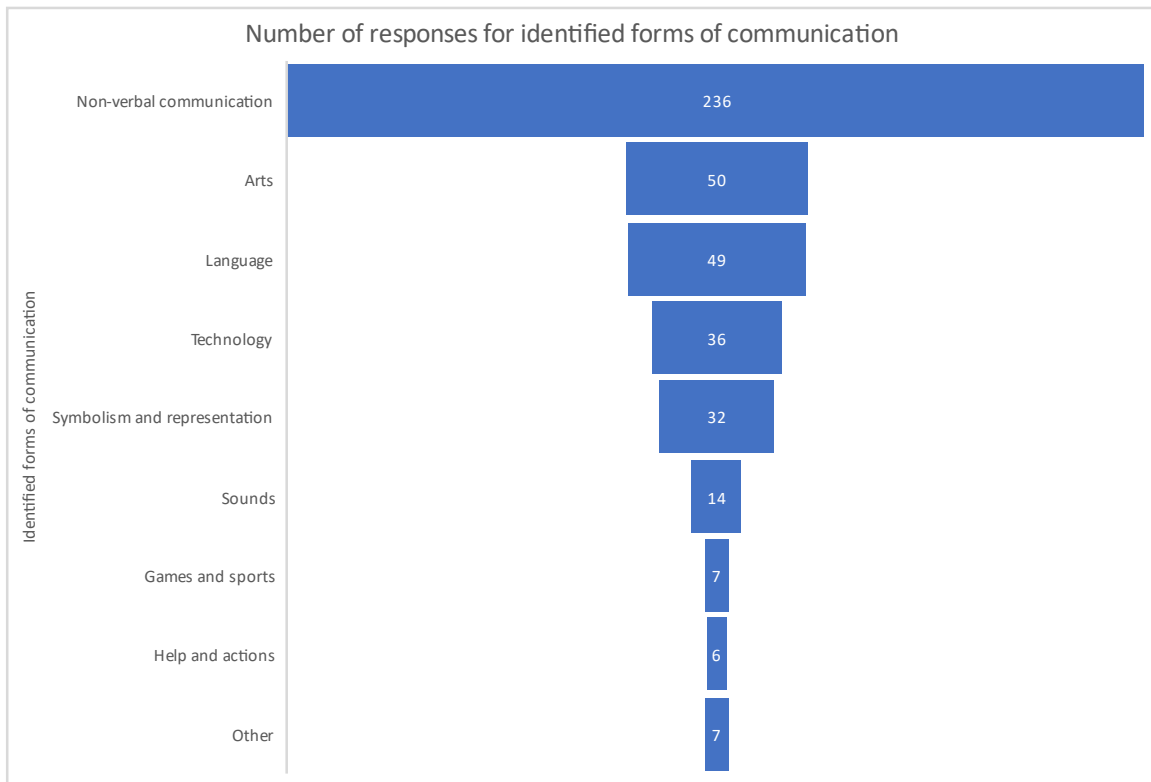
*Figure 26: Forms of communication – Number of responses*

DP Arts-students (N125) mentioned specific forms of communication more often than their DP Non-Arts peers (N112). These included examples of

- non-verbal communication (103% versus 96%)
- the Arts (25% versus 17%), and
- help and actions (4% versus 1%).

In contrast, DP Non-Arts-students mentioned other forms of communication more often than their DP Arts-peers, which included examples of

- language (24% versus 18%)
- technology (17% versus 14%)
- symbolism (18% versus 10%), and
- games and sports (4% versus 2%).

Both groups mentioned the use of sound and phonetic representations equally often (6% each).
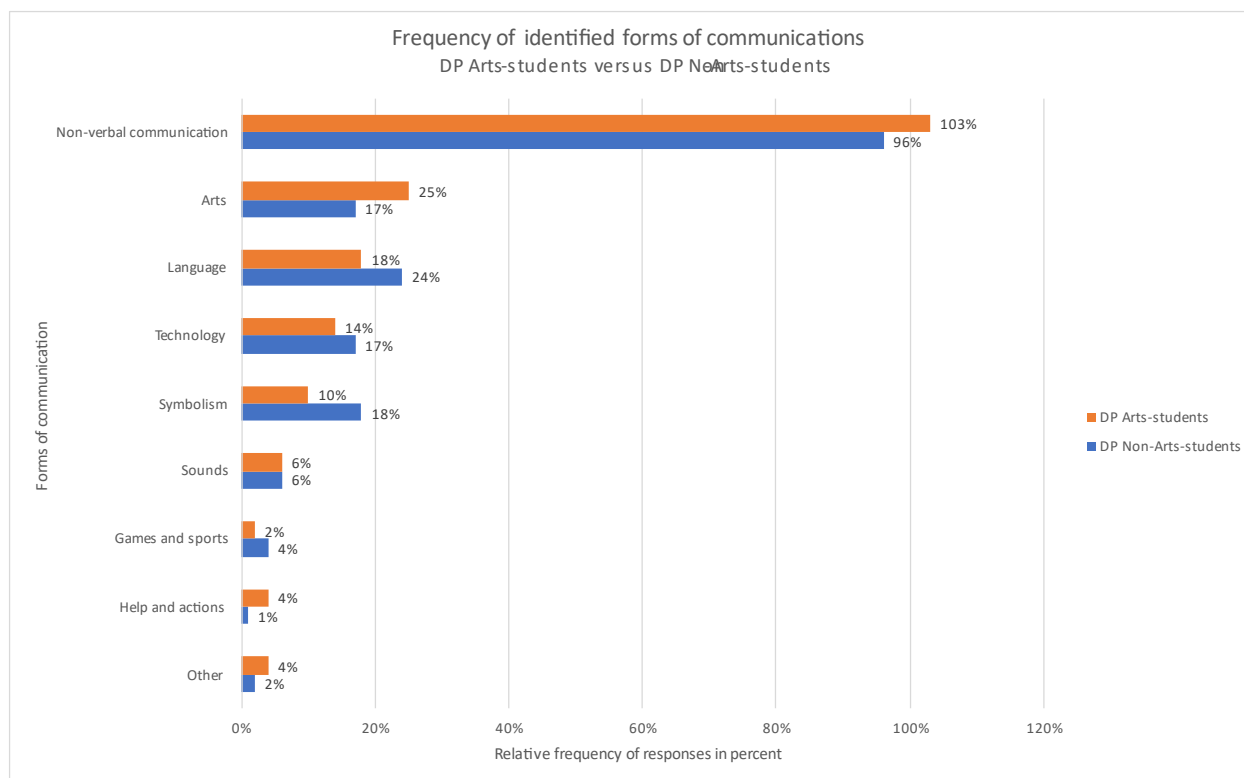
*Figure 27: Frequency of identified forms of communication in DP Arts-students and DP Non-Arts-students*

## *General Trends*

A total of 152 students gave valid responses of which 105 responses were given in the pre-test and 47 were given in the post-test. There was only a slight upward trend between pre-test (mean 3.41) and post-test (mean 3.47). The lowest response category in the pre- as well as in the post-test was '2' while the highest response category was '5'.[79] As figure 28 shows, there was an upward trend in responses to categories 3 and 5 from pre-test to post-test (category 3: +5.3%, category 5: +5.8%). Responses showed an expected decreasing trend between pre- and post-test in category 2 responses (-2.7%). However, they also demonstrated an unexpected decreasing trend between pre-test and post-test in category 4 responses (-8.5%).[80]

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[79] Appendix 11: 'Communicator' – Overall responses
[80] Appendix 11: 'Communicator' – Overall responses: Relative frequency of responses per category (in percent)
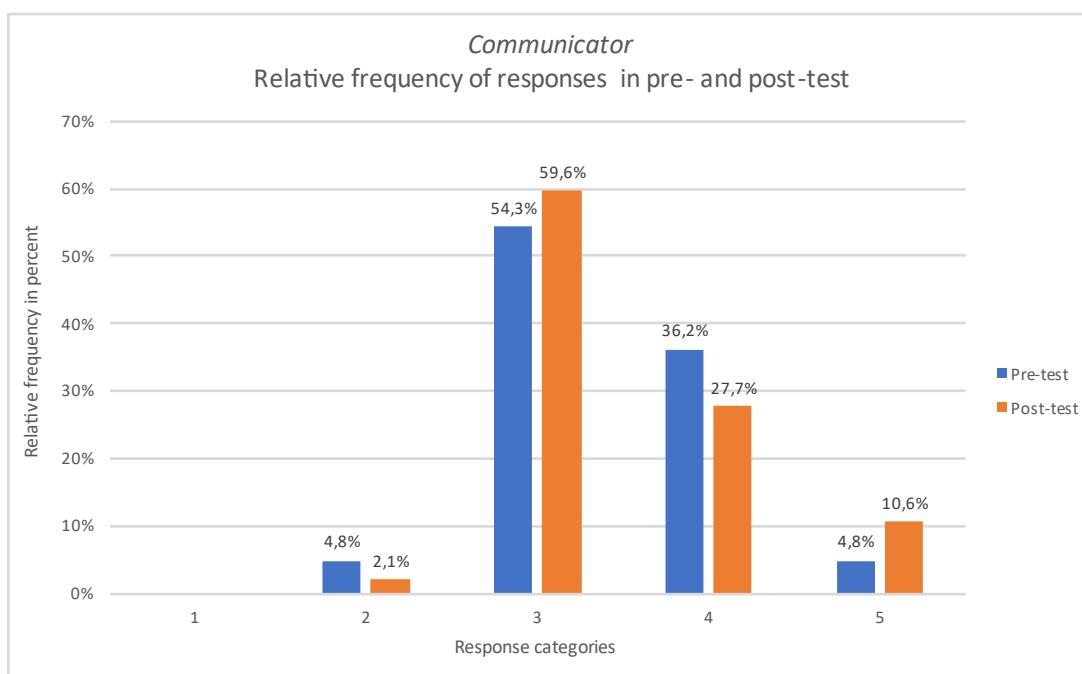
*Figure 28: Overall - Response categories for LPA 'communicator'*

When comparing Diploma candidates with Certificate candidates, Diploma candidates (N89) scored lower in the pre-test (mean 3.40) with a distribution of responses across categories 2–5 than Certificate candidates (N12; mean 3.50) with a distribution of responses across categories 3–4. In the post-test, the responses of Diploma candidates (N40) showed a small up-ward trend (mean 3.45) with response categories remaining at 2–5, similar to the responses of (only) seven Certificate candidates whose mean score increased to 3.57 with the response categories 3–5.[81] Students with a prior IB education (N31) started with a lower mean score (3.29) in the pre-test with response categories from 2 to 5 but showed an increasing trend with a post-test mean score of 3.5 (N12) and response categories from 3 to 5. Students with no prior IB education (N60), although starting with a higher mean score (3.47) in the pre-test, showed a decreasing trend in categories with a mean score of 3.40 (N30) in the post-test and response categories 2–5.[82] Students from private schools showed a slightly decreasing trend in response categories with mean scores in the pre-test of 3.43 (N94) and in the post-test of 3.38 (N34) and response categories between 2 and 5 in both tests. However, students from state/public schools showed an increasing trend of

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[81] Appendix 11: 'Communicator' – Candidate status
[82] Appendix 11: 'Communicator' – Prior IB

response categories with mean scores of 3.30 (N 10) and response categories ranging from 2 to 4 in the pre-test, and a mean score of 3.69 (N13) and response categories ranging from 3 to 5 in the post-test.[83] Figure 29 below shows the trends between pre- and post-test mean scores of the responses given by the three groups discussed above.
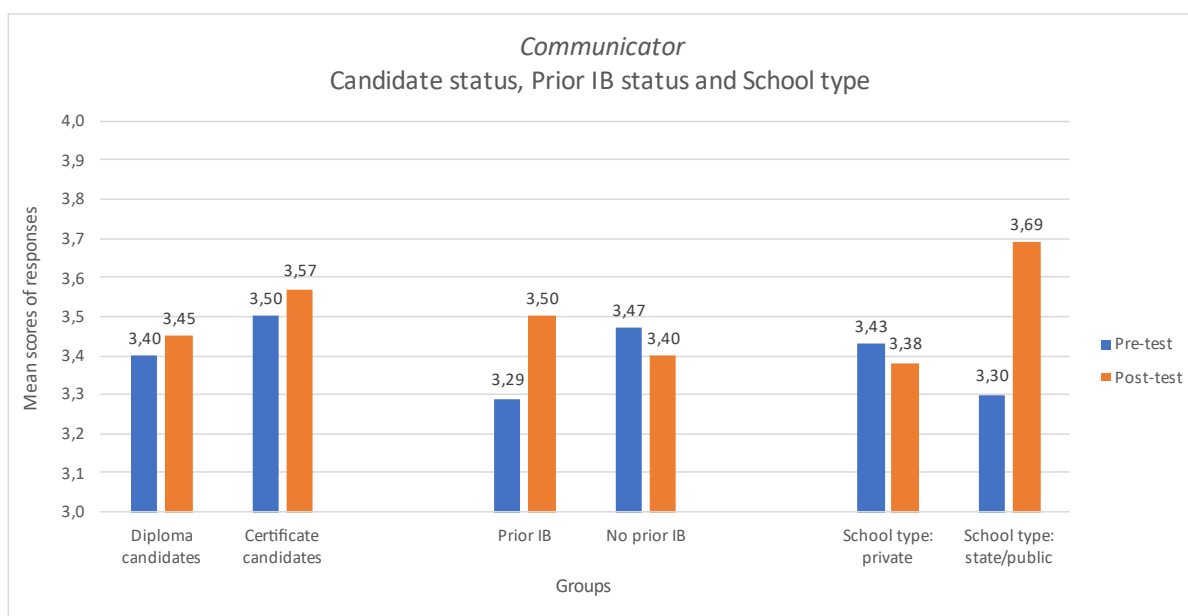


*Figure 29: Mean scores of responses: Candidate status, Prior IB and School type – LPA 'communicator'*

Students with diverse cultural backgrounds showed a decreasing trend in mean scores between pre-test (N62, mean 3.45) and post-test (N26, mean 3.31) with response categories between 2 and 5. Students from monocultural backgrounds showed an increasing trend in mean scores between pre-test (N39, mean 3.38, response categories between 2–5), and post-test (N21, mean 3.67, response categories 3-5).[84] Furthermore, female students showed an increasing trend in mean scores between pre-test (N58, mean 3.52) and post-test (N31, mean 3.61) with response categories between 2 and 5. The mean score of male students, however, decreased with a mean of 3.29 (N45, response categories 2-4) in the pre-test and a mean of 3.19 (N16, response categories 3-5) in the post-test.[85] Figure 30 below shows the mean scores in pre- and post-test of students grouped by cultural background and by gender.

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[83] Appendix 11: 'Communicator' – School type
[84] Appendix 11: 'Communicator' – Cultural background
[85] Appendix 11: 'Communicator' – Gender
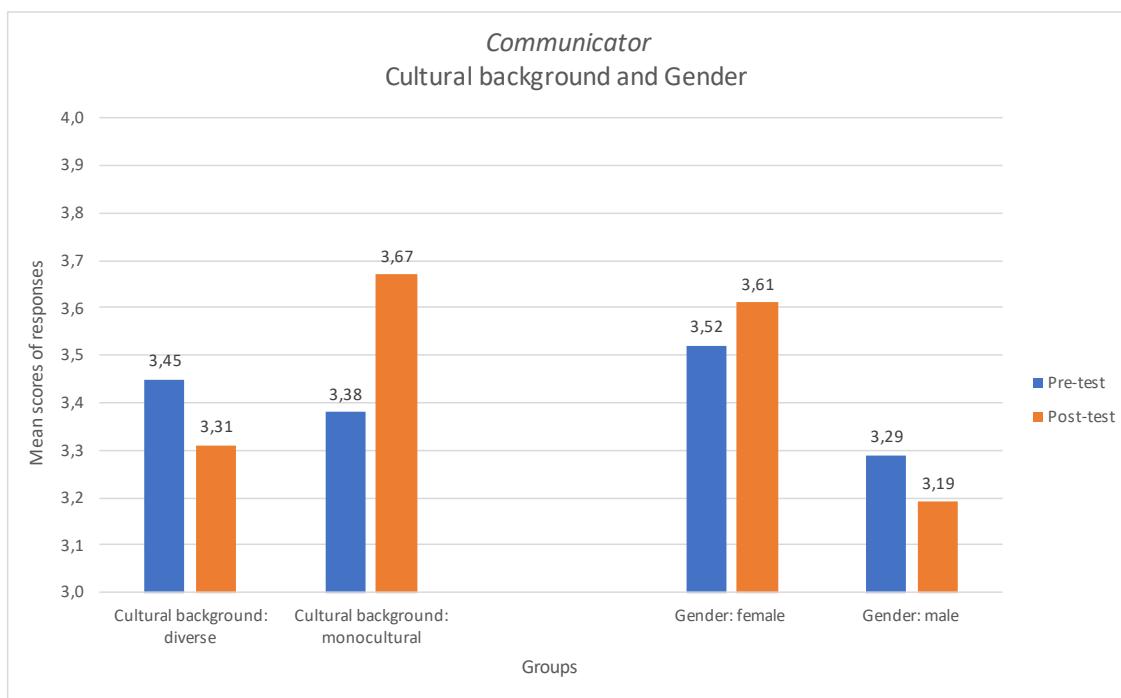
*Figure 30: Mean scores of responses: Cultural background and Gender – LPA 'communicator'*

## Trends in Responses of Arts-students versus Non-Arts-students

For the LPA communicator, mean scores of DP Arts-students and DP Non-Arts-students showed a similar minimal increase between pre-test (DP Arts-students: N54, mean 3.46, response category 2–5; DP Non-Arts-students: N51, mean 3.35, response category 2–5) and post-test (DP Arts-students: N21, mean 3.52, response category 2–5; DP Non-Arts-students: N26, mean 3.42, response category 3-5). Pre-test responses of students who took Arts prior to the DP (N83) showed a higher mean score (mean 3.46) with a range of response categories from 2 to 5 compared to students who had No Arts prior to the DP (N21, mean 3.24, category response range 2–5). However, in the post-test Prior Arts students (N36) showed a slightly decreased mean score (mean 3.42; category response range: 2–5) while No prior Arts students (N11) showed an increase in mean score from 3.24 to 3.64 (category response range: 3–5) in the post-test. A similar trend could be seen in students who took Arts outside the DP whose mean scores decreased from pre-test (N52, mean 3.56, categories 2-5) to post-test (N32, mean 3.47, categories 2-5), while the mean scores of students with no Arts outside the DP increased (pre-test: N53, mean 3.26, categories 2-4; post-test:

N15, mean 3.47, categories 3-5).[86] As the graphs in figure 31 show, students who took DP Arts courses showed an increasing trend in mean scores while those who took Arts prior to or Arts outside the DP did not demonstrate the same trend, but rather showed a decreasing trend in mean scores (see groups of students with Prior arts and Arts outside DP).
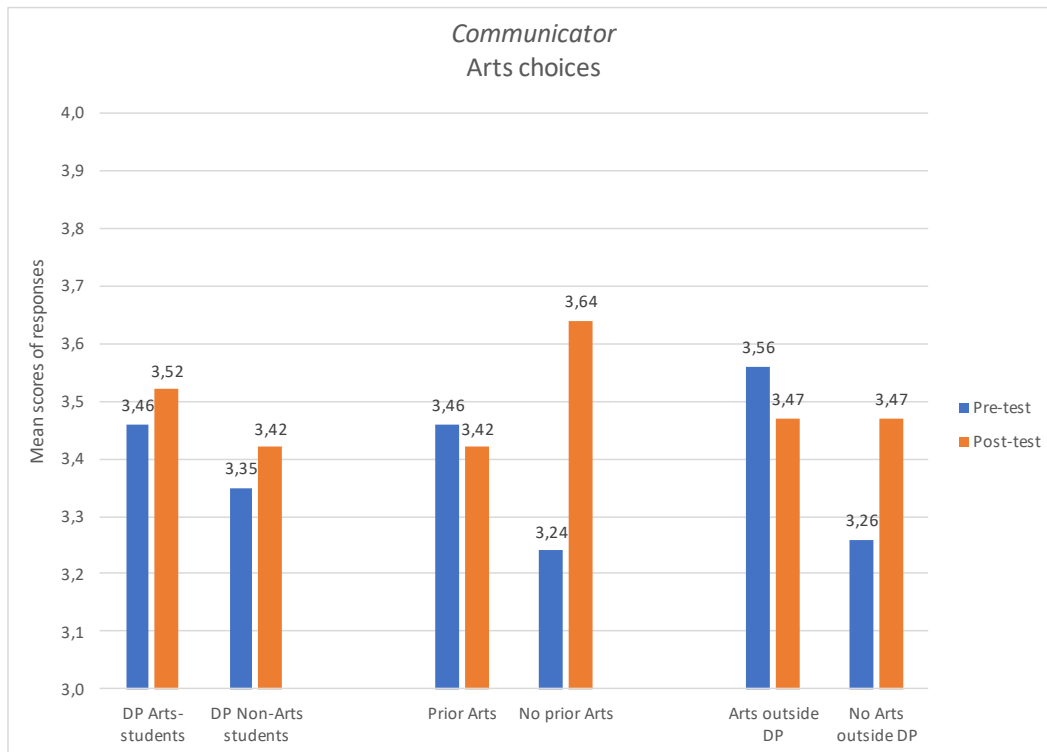


*Figure 31:Mean scores of responses: Arts choices – LPA 'communicator'*

## Inquirer, Thinker, Reflective (Critical Thinking)

In the following section, the findings for the LPAs *inquirer, thinker,* and *reflective* will be introduced. Students showed a general upward trend in mean scores, along with an increase of responses in categories 4 and 5 and decreases in categories 1-3. In general, there was an increase in mean scores in all groups except for the groups of Certificate candidates and male students which showed decreasing mean scores. In the groups relating to Arts versus No Arts choices there were strong increases in mean scores of all Arts-students groups but decreases in the groups No prior Arts and No Arts outside DP.

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[86] Appendix 11: 'Communicator' – Arts versus No Arts

For the question on the LPA *critical thinking* a total of 135 students gave valid responses. 90 responses were given in the pre-test and 45 were given in the post-test. There was an upward trend in responses with a mean of 3.71 in the pre-test and a mean of 3.84 in the post-test. In the pre-test the lowest response category was '2' while the lowest response category in the post-test was '3' and the highest response category was '5' in both tests.[87] As figure 32 demonstrates, there was a decrease in category 2 and 3 (category 2: -4.4%, category 3: -3.3%) responses and an upward trend in responses to categories 4 and 5 from pre-test to post-test (category 4: +6.6%, category 5: +1.2%).[88]
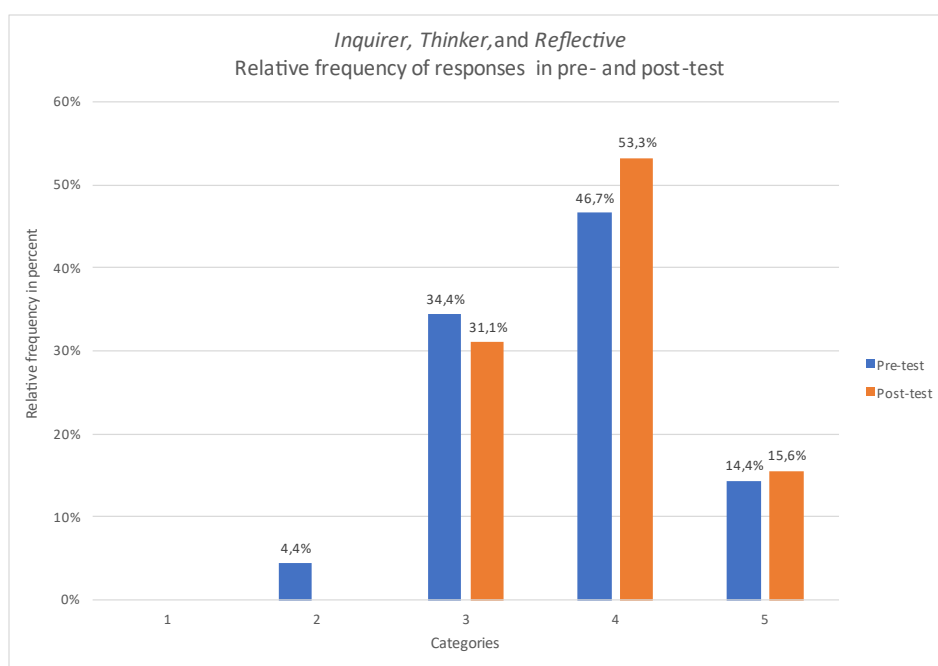


*Figure 32: Overall – Response categories for LPAs 'inquirer', 'thinker' and 'reflective'*

When comparing Diploma candidates and Certificate candidates, Diploma candidates (N74) scored higher in the pre-test (mean 3.76) than Certificate candidates (N13; mean 3.46). The distribution of responses in both groups was 2–5 in the pre-test. In the post-test, the responses of Diploma candidates (N39) showed an upward trend (mean 3.92) with response categories 3–5, in comparison to the responses of (only) five Certificate candidates whose mean scores decreased to

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[87] Appendix 11: Critical Thinking – Overall responses
[88] Appendix 11: Critical Thinking – Overall responses: Relative frequency of responses per category (in percent)

3.20 with the response categories 3–4.[89] Students with a Prior IB education and students with No prior IB education increased their mean scores although students with No prior IB education scored generally slightly higher in both, pre-test and post-test (Prior IB students: pre-test [N29] mean 3.62 with response categories from 3-5, post-test [N14] mean 3.71 with response categories from 3 to 5; No prior IB students: pre-test [N51] mean 3.73 with response categories from 2 to 5, post-test [N25] mean 3.88 with response categories from 3 to 5).[90] A similar trend was observed between students from private schools and students from state/public schools, although there was a greater increase between pre- and post-test for students from state/public schools (private school students: pre-test [N76] mean 3.76, response categories 2–5, post-test [N35] mean 3.86, response categories 3–5; state/public school students: pre-test [N13] mean 3.38, response categories 3–4, post-test [N9] mean 3.78, response categories 3–5).[91] Figure 33 below shows the mean scores of the responses of the three groups discussed above. The graphs show an increase between pre- and post-test means in all groups, except for Certificate candidates whose mean scores decreased between pre- and post-test.
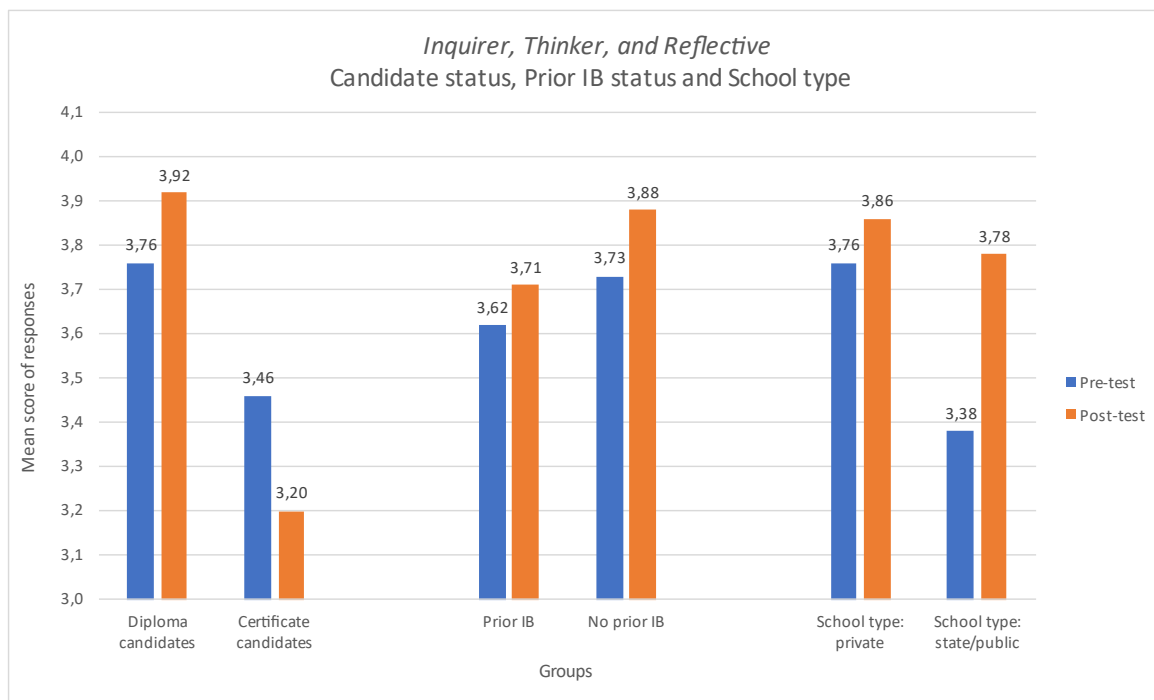


*Figure 33: Candidate status, Prior IB and School type – LPAs 'inquirer', 'thinker' and 'reflective'*

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[89] Appendix 11: Critical Thinking – Candidate status
[90] Appendix 11: Critical Thinking – Prior IB
[91] Appendix 11: Critical Thinking – School type

When comparing students from diverse cultural background and students from monocultural backgrounds, both groups showed an increase between pre- and post-test although this increase was greater for students from diverse cultural backgrounds (diverse cultural background: pre-test [N59] mean 3.71, response categories 2–5; post-test [N23] mean 3.96, response categories 3–5; monocultural background: pre-test [N29] mean 3.66, response categories 2–5; post-test [N21] mean 3.71, response categories 3–5).[92] Similarly, when comparing gender, however, female students did show an increasing trend in mean scores between pre-test and post-test while male students did not (female: pre-test [N52] mean 3.69, response categories 2–5; post-test [N26] mean 3.92, response categories 3–5; male: pre-test [N35] mean 3.71, response categories 2–5; post-test [N18] mean 3.72, response categories 3–5).[93] Figure 34 shows the mean scores in pre- and post-test of students grouped by cultural background and by gender.
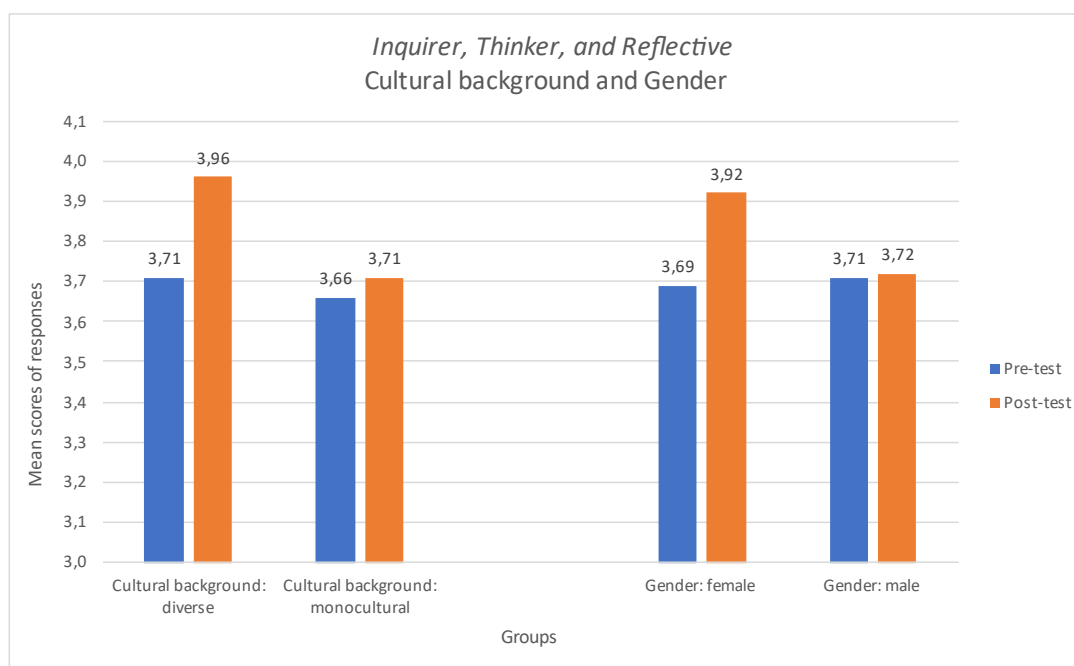


*Figure 34: Cultural background and Gender – LPAs 'inquirer', 'thinker' and 'reflective'*

### *Trends in responses of Arts-students versus Non-Arts-students*

In the pre-test the mean scores of students who opted for a DP Arts course (N49, mean 3.61) and students who took Arts outside the DP (N45, mean 3.64) were lower than those of students who

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[92] Appendix 11: Critical Thinking – Cultural background
[93] Appendix 11: Critical Thinking – Gender

270

did not opt for a DP Arts course (N41, mean 3.83) or those who did not take any Arts outside the DP (N45, mean 3.78). However, students who took Arts prior to the DP had a higher mean score in the pre-test (N69, mean 3.74) than those students who did not take any Arts prior to the DP (N20, mean 3.60). Regardless of the initial mean scores, students who were engaged in the Arts in either of the groups showed a greater increase in mean scores between pre- and post-tests (DP Arts-students: post-test: N18, mean 3.83 [from 3.61]; Prior Arts-students: post-test: N30, mean 3.97 [from 3.74]), and Arts outside DP: post-test: N24, mean 3.92 [from 3.64]), compared to a smaller increase in DP Non-Arts-students (post-test [N26] mean 3.85 [from 3.83]) and slight decreases in No prior Arts students (post-test [N14] mean 3.57 [from 3.60]), and No Arts outside DP students (post-test [N20], mean 3.75 [from 3.78]). The range of response categories for all groups changed from 2 to 5 in the pre-test to 3 to 5 in the post-test, except for the group of No prior Arts students whose range remained at 3 to 5 between pre- and post-test.[94] Figure 35 below shows the increasing trends of response categories of Arts-students and Non-Arts-students across groups.
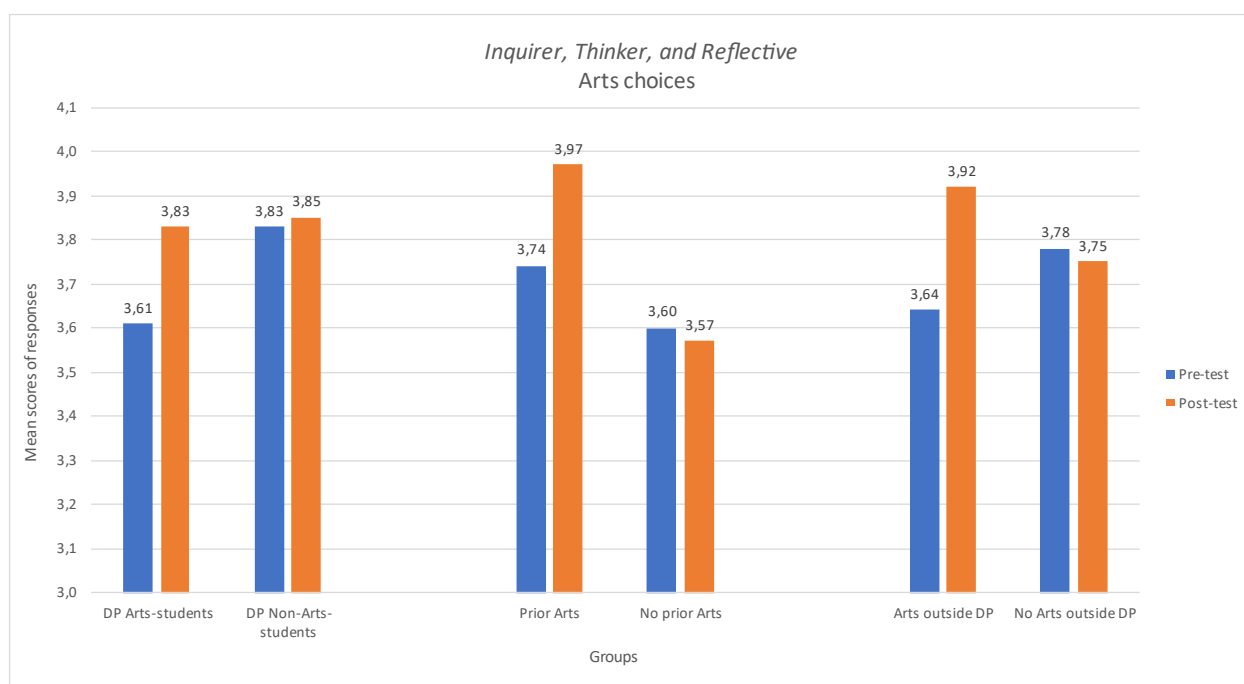


*Figure 35: Mean scores of responses: Arts choices – LPAs 'inquirer', 'thinker' and 'reflective'*

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[94] Appendix 11: Critical Thinking – Arts versus No Arts

**Caring and Principled**

In the following section, the findings for the LPAs *caring and principled* will be introduced. Main findings for this LPA include a general (slightly) increasing trend in all groups except in the group of students from diverse cultural backgrounds and in the group of male students.

*General Trends*

For the question on *caring and principled* a total of 163 students gave valid responses. 115 responses were given in the pre-test and 48 were given in the post-test. Overall, there was a slight upward trend with a mean score of 3.69 in the pre-test and a mean score of 3.81 in the post-test. In the pre-test the lowest response category was '1' while the lowest response category in the post-test was '2'. At both times, the highest response category was '5' and the category with highest frequencies was category 4 (pre-test 59.1%, post-test 58.3%).[95] As figure 36 shows, there was little change in the frequency of responses in each category between pre- and post-test in categories 1, 2 and 4 (category 1: -0.9%, category 2: -0.5%, category 4: -0.8). However, a slight decrease in frequency of responses in category 3 (-3.3%) and an increase in category 5 (+5.5%) could be observed.[96]
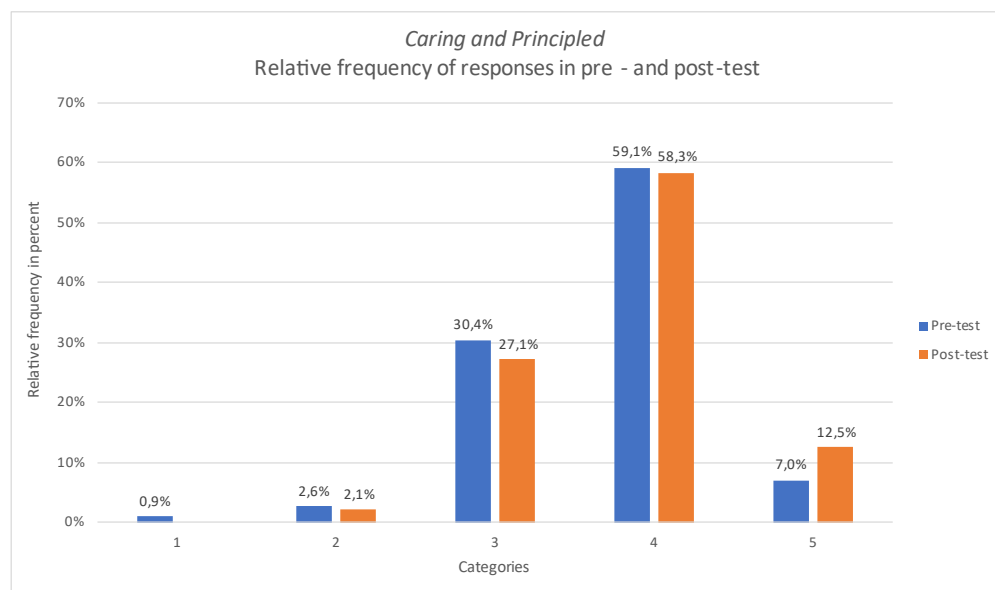


Figure 36: Relative frequency of responses in pre- and post-test for the LPAs 'caring' and 'principled'

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[95] Appendix 11: 'Caring' and 'Principled' – Overall responses
[96] Appendix 11: 'Caring' and 'Principled' – Overall responses: Relative frequency of responses per category (in percent)

When comparing Diploma candidates with Certificate candidates, Diploma candidates (N92) scored higher in the pre-test (mean 3.73) with a distribution of responses across categories 2–5, compared to Certificate candidates (N16) with a mean 3.63 and a distribution of responses across categories 3–5. In the post-test, the responses of Diploma candidates (N40) showed an up-ward trend (mean 3.88) with response categories at 3–5. Likewise, Certificate candidates (N7) showed an upward trend of mean scores although less strong (mean 3.71) with the response categories of 3–5.[97] There were no noteworthy differences between groups of students relating to prior IB education or school type except that students from state/public schools had lower mean scores in pre- and post-tests compared to the students from private schools. Nevertheless, students from all groups showed a similar upward trend between pre- and post-test (figure 37):[98]

- Students with a prior IB education: pre-test (N43) mean 3.65, categories 1-5; post-test (N19) mean 3.84, categories 3-5

- Students with no prior IB education: pre-test (N55) mean 3.69, categories 2-5; post-test (N24) mean 3.75, categories 2-5

- Private schools: pre-test (N94) mean 3.79, categories 2-5; post-test (N38) mean 3.92, categories 3-5

- State/public schools: pre-test (N20) mean 3.25, categories 1-4; post-test (N10) mean 3.40, categories 2-5

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[97] Appendix 11: 'Caring' and 'Principled' – Candidate status
[98] Appendix 11: 'Caring' and 'Principled' – Prior IB and School type
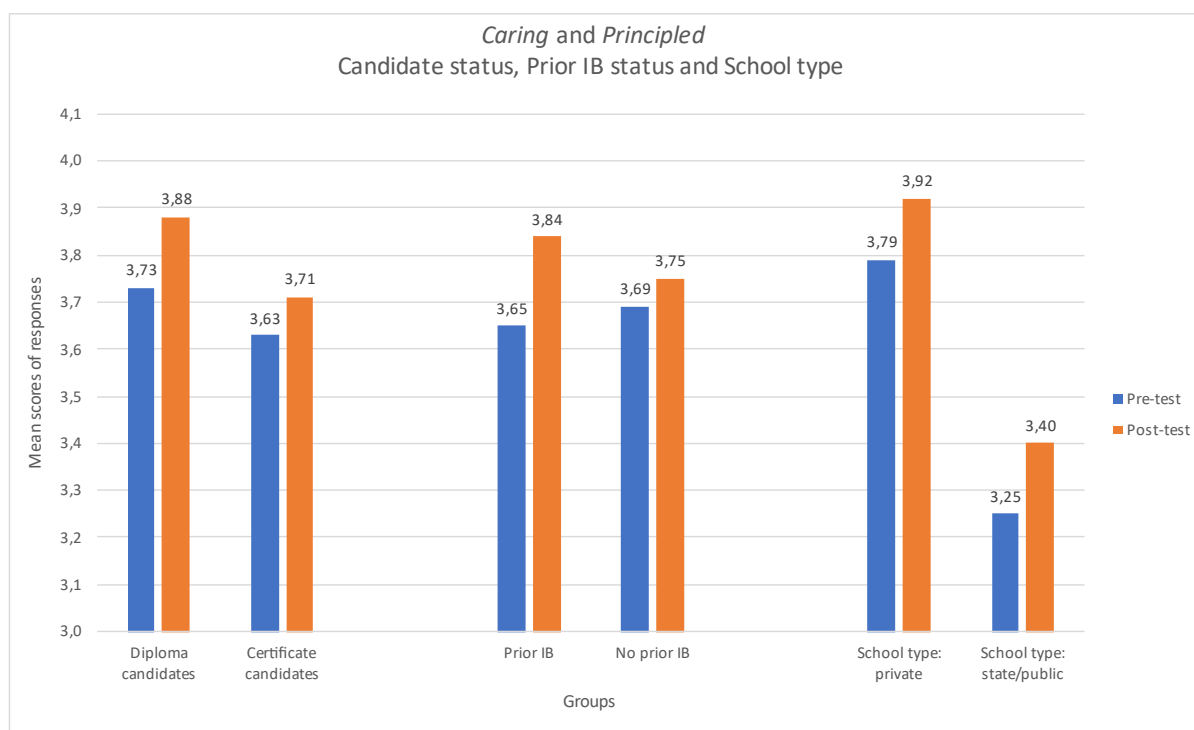
*Figure 37: Candidate status, Prior IB and School type - LPAs 'caring' and 'principled'*

In the pre-test students with diverse cultural backgrounds (N72) had a mean score of 3.82 which decreased in the post-test to a mean score of 3.74 (N34) with responses across categories 2–5 at both points in time. Students from monocultural backgrounds on the other hand showed an increasing trend between pre-test (N38, mean, 3.58, response categories 2–5) and post-test (N14, mean, 4.00, response categories 3–5). [99] Furthermore, in the pre-test, female students scored slightly lower (N64, mean 3.69, response categories 2-5) than male students (N48, mean 3.73, response categories 1–5). However, in the post-test, female students (N29) increased their mean score to 3.97 (response categories 3–5) while the mean score of male students (N19) decreased to 3.58 (response categories 2–5). [100] Figure 38 shows the mean scores in pre- and post-test of students grouped by cultural background and by gender.

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[99] Appendix 11: 'Caring' and 'Principled' – Cultural background
[100] Appendix 11: 'Caring' and 'Principled' – Gender
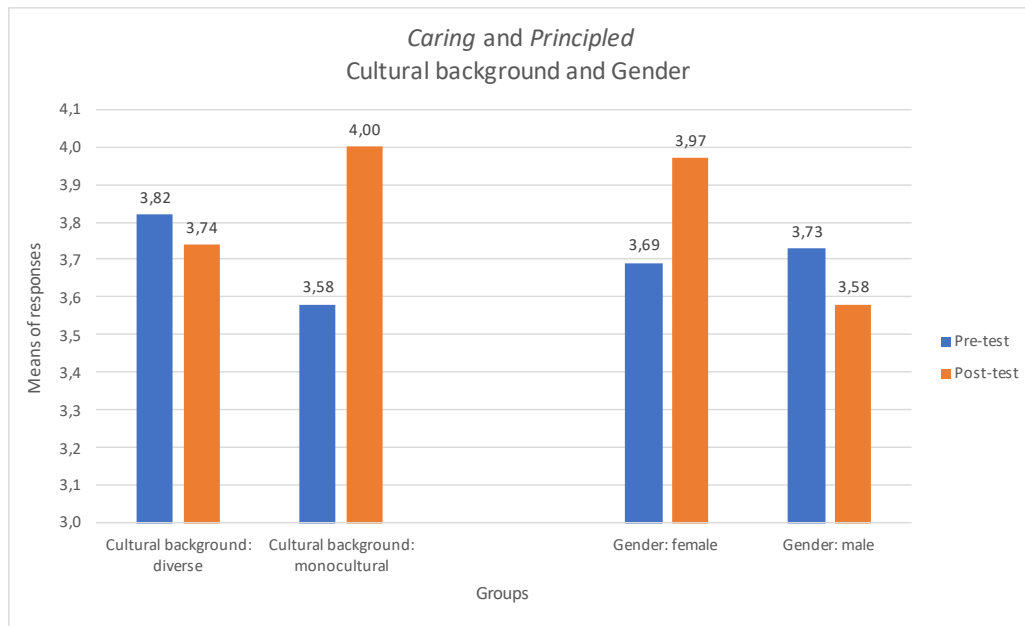
*Figure 38: Cultural background and Gender –LPAs 'caring' and 'principled'*

## Trends in Responses of Arts-students versus Non-Arts-students

As seen in figure 39 below, all groups of Arts and Non-Arts-students demonstrated an increasing trend between pre- and post-test, but three groups (namely DP Arts-students, No prior Arts, No Arts outside DP) had lower pre-test scores and consequently also a lower post-test score:[101]

- DP Arts-students: pre-test (N64) mean 3.66, categories 2-5; post-test (N20) mean 3.75, categories 2-5

- DP Non-Arts-students: pre-test (N51) mean 3.73, categories 1-5; post-test (N28) mean 3.86, categories 3-5

- Prior Arts: pre-test (N89) mean 3.71, categories 1-5; post-test (N34) mean 3.85, categories 2-5

- No prior Arts: pre-test (N25) mean 3.64, categories 3-5; post-test (N14) mean 3.71, categories 3-4

- Arts outside DP: pre-test (N56) mean 3.75, categories 1-5; post-test (N29) mean 3.90, categories 3-5

- No Arts outside DP: pre-test (N59) mean 3.63, categories 2-5; post-test (N19) mean 3.68, categories 2-5.

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[101] Appendix 11: 'Caring' and 'Principled' – Arts versus No Arts
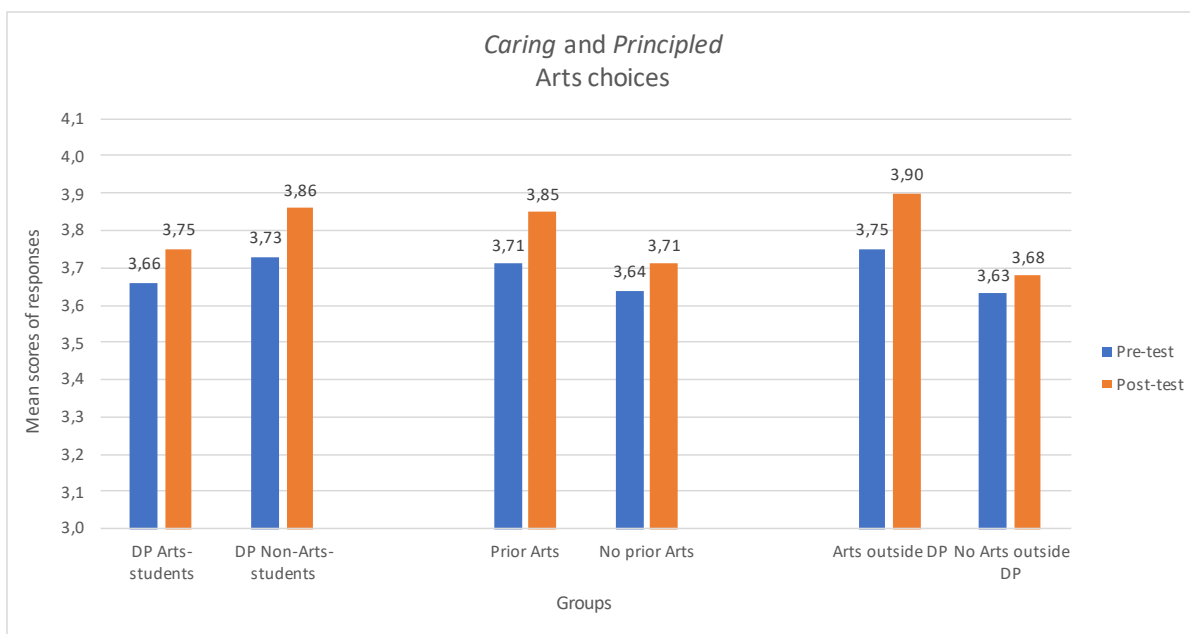
Figure 39: Mean scores of responses: Arts choices – LPAs 'caring' and 'principled'

## Risk-taker (Willingness to Act)

In the following section, the findings for the question on student's willingness to act (in short: 'action'), associated with the LPA *risk-taker* will be introduced. Overall, student responses showed a slight upward trend from pre- to post-test, although responses in category 3 increased, while responses in category 4 decreased. Interesting to note were increases in the responses of students with prior IB education, students from state/public schools, monocultural students and male students. Students who were actively involved in the Arts, for example students who took an IB DP Arts subject or those who took Arts outside the DP showed a decreasing trend in their willingness to act, even though they had the highest pre-test mean scores.

### *General Trends*

For the question on *Action* a total of 147 students gave valid responses. 95 responses were given in the pre-test and 52 were given in the post-test. There was only a slight upward trend with students with a mean of 3.69 in the pre-test and a slightly higher mean of 3.73 in the post-test. In the pre-test the lowest response category was '2' while the lowest response category in the post-test was '1'. At both times, the highest response category was '5' and the category with highest

frequencies was category 4 (pre-test 56.8%, post-test 46.2%).[102] As figure 40 shows, there was a decrease between pre- and post-test in categories 2 and 4 responses (category 2: -4.5%, category 4: -10.6%) and an upward trend in responses to categories 1, 3 and 5 from pre- to post-test (category 1: +1.9%, category 3: +6%, category 5: +7%).[103]
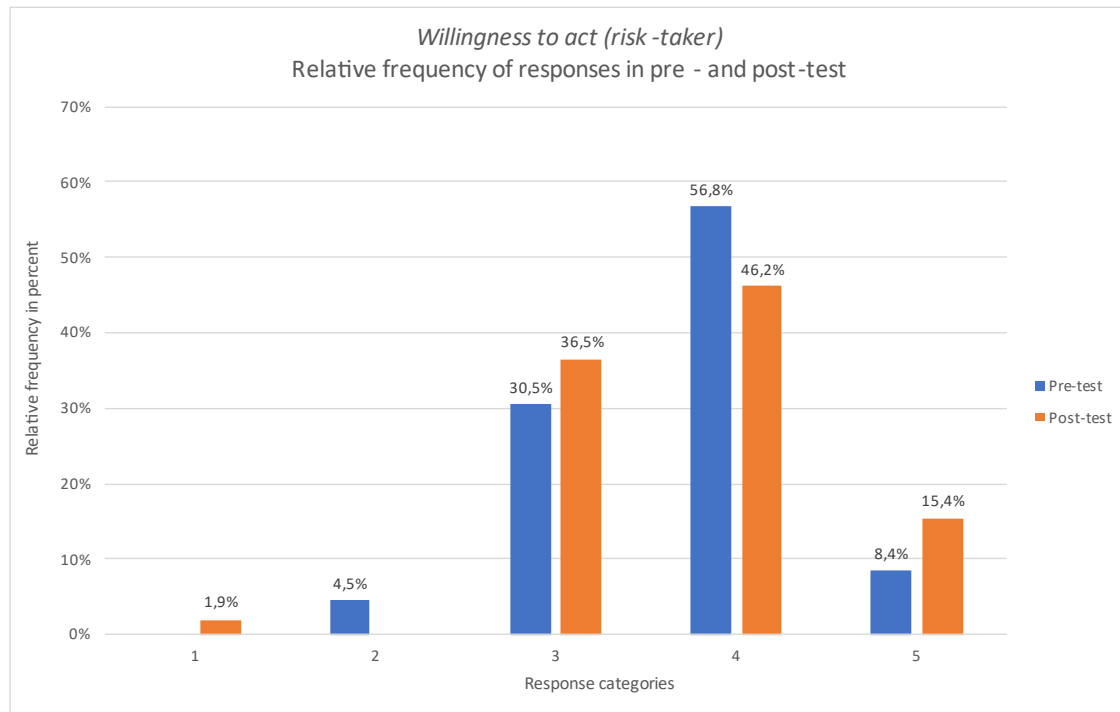


*Figure 40: Relative frequency of responses in pre- and post-test – LPA 'risk-taker' (willingness to act)*

When comparing Diploma candidates and Certificate candidates, Diploma candidates scored slightly higher in the pre-test (N75, mean 3.76), compared to Certificate candidates (N14) with a mean 3.71. The distribution of responses in both groups was categories 2-5. In the post-test, the responses of Diploma candidates (N47) were similar (mean 3.77) with response categories 3–5. However, the mean score of (only) five Certificate candidates decreased to 3.40 with response categories ranging from 1 to 5.[104]

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[102] Appendix 11: 'Risk-taker' – Overall responses
[103] Appendix 11: 'Risk-taker' – Overall responses: Relative frequency of responses per category (in percent)
[104] Appendix 11: 'Risk-taker' – Candidate status

In the pre-test, students with a prior IB education (N28) had a mean score of 3.61 with response categories across 2-5 which increased in the post-test (N17) to 3.82 with response categories from 3-5. Students with no prior IB, however, started on a higher mean score in the pre-test (N50, mean 3.80, response categories 2-5) which decreased in the post-test (N30, mean 3.70, response categories 1–5).[105] Likewise, students from private schools showed a decreasing trend of mean scores between pre-test (N80, mean 3.76, response categories 2-5) and post-test (N40, mean 3.65, response categories 3–5). However, an increase of mean scores was demonstrated by students from state/public schools between pre-test (N14, mean 3.29, response categories 2–5) and post-test (N12, mean 4.00, response categories 1–5). [106] Figure 41 below shows the mean scores of the responses of the three groups discussed above. The graphs illustrate that the only increase between pre- and post-test means is evident for students with a prior IB education and especially for students from state/public schools.
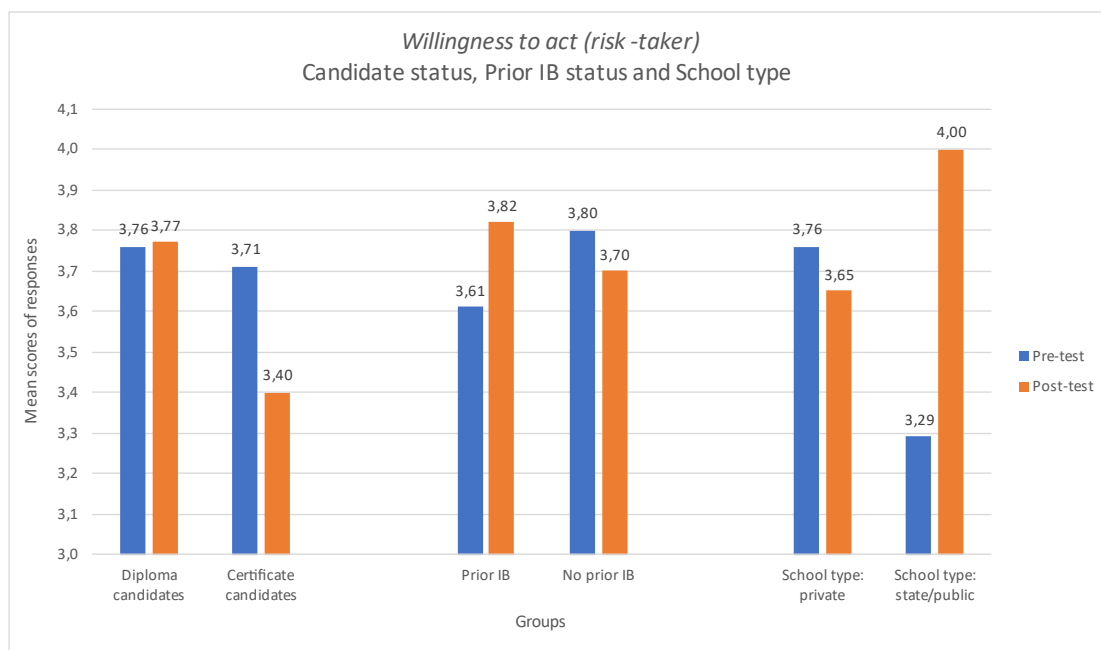


*Figure 41: Candidate status, Prior IB and School type – LPA 'risk-taker' (willingness to act)*

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[105] Appendix 11: 'Risk-taker' – Prior IB
[106] Appendix 11: 'Risk-taker' – School type

When comparing students from diverse cultural backgrounds and students from monocultural backgrounds, students had similar mean scores in the pre-test (diverse cultural background: N60, mean 3.70, response categories 2–5; monocultural background: N32, mean 3.66, categories 3-5). However, while there was no difference in post-test results for culturally diverse students (N26, mean 3.69, response categories 1–5), students from monocultural backgrounds demonstrated an increasing trend (N25, mean 3.80, response categories 3–5).[107] Furthermore, female students had similar pre-test and post-test scores (pre-test: N50, mean 3.72, response categories 2–5; post-test: N36, mean 3.72, response categories 1–5) while male students showed an increase of mean scores in the post-test (pre-test: N42, mean 3.62, response categories 2-5; post-test: N16, mean 3.75, response categories 3-5).[108] Figure 42 below shows the mean scores in pre- and post-test of students grouped by cultural background and by gender showing the increase of mean scores in the groups of monocultural students and male students.
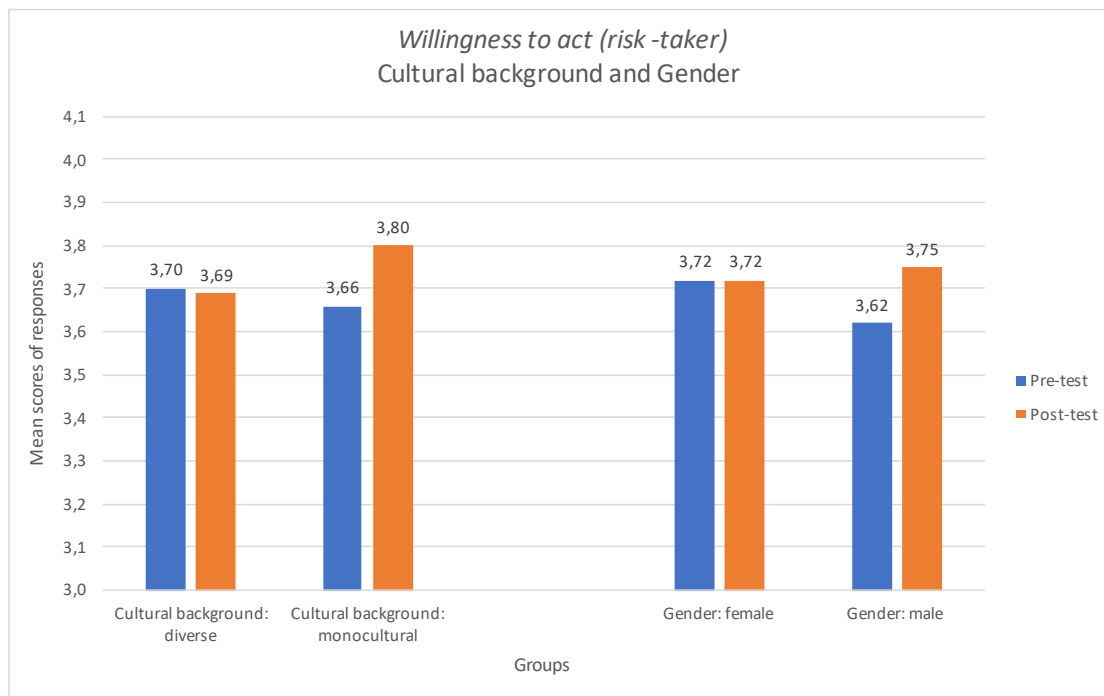


*Figure 42: Cultural background and Gender – LPA 'risk-taker' (willingness to act)*

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[107] Appendix 11: 'Risk-taker' – Cultural background
[108] Appendix 11: 'Risk-taker' – Gender

*Trends in Responses of Arts-students versus Non-Arts-students*

When comparing pre- and post-test scores of Arts versus Non-Arts-students, different trends emerged. Students who opted for a DP Arts course started on a higher mean score (pre-test: N50, mean 3.76, categories 2–5) than those who did not opt for DP Arts (pre-test: N45, mean 3.62, categories 2–5), but showed a slightly decreasing trend in the post-test (N26, mean 3.73, categories 1–5) compared to DP Non-Arts-students (N26, mean 3.73, categories 3–5). However, it must be noted that both groups had similar post-test results. This trend was opposite in the Prior Arts versus No prior Arts groups. Students who engaged in Arts education prior to taking the DP started on a slightly lower mean score and demonstrated an increasing trend (pre-test: N70, mean 3.69, categories 2–5; post-test: N37, mean 3.78, categories 1–5) compared to those who did not engage in Arts prior to the DP who showed a decreasing trend (pre-test: N24, mean 3.71, categories 2–5; post-test: N15, mean 3.60, categories 3–5). The third group, namely students who took Arts outside the DP versus those who did not, showed a similar trend as the first group (DP Arts-students versus DP Non-Arts-students): Students who took Arts outside the DP started on a higher mean score (N48, mean 3.81, categories 2–5) than those who did not (N47, mean 3.57, categories 2–5), but showed a decreasing trend in the post-test (N29, mean 3.69, categories 1–5) compared to those who did not take Arts outside the DP (N23, mean 3.78, categories 3–5).[109]
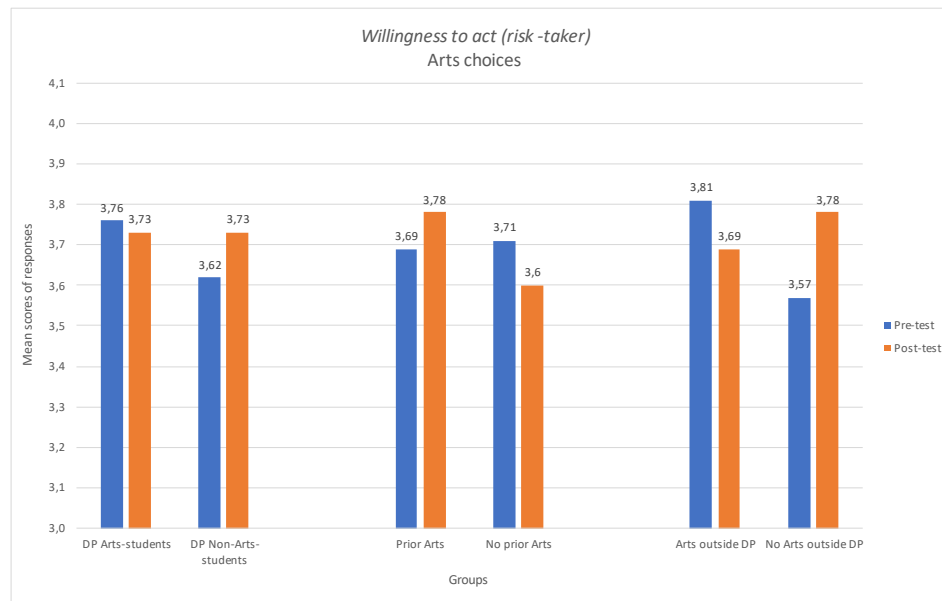


*Figure 43: Mean scores of responses: Arts choices – LPA 'risk-taker' (willingness to act)*

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[109] Appendix 11: 'Risk-taker' – Arts versus No Arts

## Section 2: Themes

**Themes within Attributes across Categories**

The next section will look at how frequently the themes of an LPA were represented across categories.[110] In the general overviews of the previous section, the relative frequency of themes was based on the total number of responses to see how the themes were distributed across categories in order to establish how often themes generally occurred. For example, if in an LPA 150 valid responses were given with 30 responses in each category, then the percentage of each category would be 20% each. When comparing themes between pre- and post-test and among categories, the percentage was based on the number of responses within each category. For example, if in a specific category 30 responses were given and 15 responses evidenced a specific theme the percentage of that theme within the category would be 50% (not 10% if it was based on the total number of responses). This is done because the number of responses in each category is different. So, naturally, occurring themes are going to differ which would affect the comparison between pre- and post-test.

*Knowledgeable*

In the student responses to the LPA *knowledgeable* (pre-test: N117; post-test: N59) all themes were represented as demonstrated in Figure 44. However, theme [K5][111] only appeared once in the pre-test (2%) in the group DP Arts-students (N59). Themes [K1][112] (pre-test: 82%; post-test: 88%) and [K2][113] (pre-test: 76%; post-test: 92%) were the most frequently represented in all student responses, followed by theme [K8][114] (pre-test: 50%; post-test 59%). Generally, there was an increase in the frequency of themes between pre-test and post-test, except for theme [K6][115] which showed a decrease in frequency in the post-test (pre-test 16%; post-test 5%).[116]

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[110] Please note that the frequency of responses and of themes was presented as relative frequency in percentages.
[111] [K5] Understanding of global responsibility
[112] [K1] Conceptual knowledge
[113] [K2] Contextual knowledge
[114] [K8] Relating (to others) through knowledge
[115] [K6] Personal truth of (perceived) global relevance
[116] Appendix 12: 'Knowledgeable' – Relative frequency of themes in overall responses
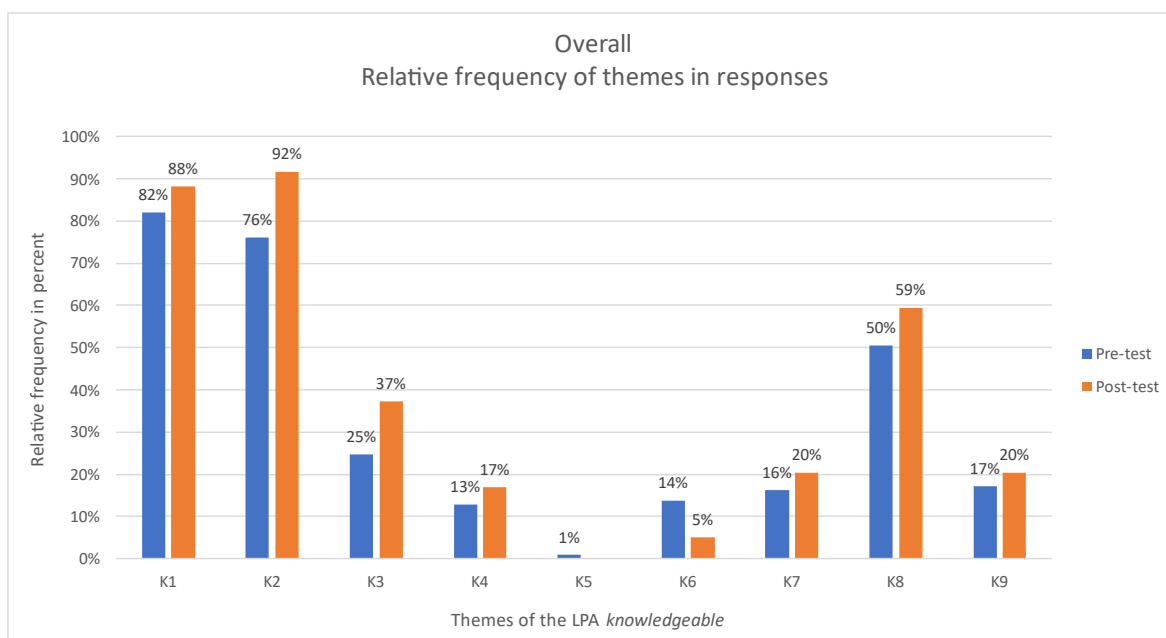
*Figure 44: Themes overall – LPA 'knowledgeable'*

Figure 45 shows that the trends between pre-test and post-test of DP Arts-students (pre-test: N59; post-test: N28) versus DP Non-Arts-students (pre-test: N58; post-test: N31) varied slightly across themes. In the themes listed below, there was an increase in relative frequencies between pre- and post-tests of DP Arts-students and DP Non-Arts-students, but the increase varied between the groups most notably in themes [K2] and [K7][117] which increased more strongly in responses of DP Arts-students and in theme [K3][118] which increased more strongly in responses of DP Non-Arts-students.

- [K1] (increase: DP Arts-students +6%, DP Non-Arts-students +7%),
- [K2] (increase: DP Arts-students +21%, DP Non-Arts-students +6%),
- [K3] (increase: DP Arts-students +8%, DP Non-Arts-students +16%),
- [K4][119] (increase: DP Arts-students +2%, DP Non-Arts-students +3%), and
- [K7] (increase: DP Arts-students +11%, DP Non-Arts-students +2%).

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[117] [K7] Imparting or sharing knowledge
[118] [K3] Local and/or global knowledge
[119] [K4] Understanding towards a peaceful and sustainable world

There was a decrease in relative frequencies in the theme [K6] in the DP Arts-students group (-18%) with little change in the DP Non-Arts-students group (+1%). In theme [K8] there was an increase in the DP Arts-students group (+19%) and a decrease in the DP Non-Arts-students group (-1%), and in theme [K9][120] there was a decrease in the DP Arts-students group (-10%) versus an increase in the DP Non-Arts-students group (+16%).[121]
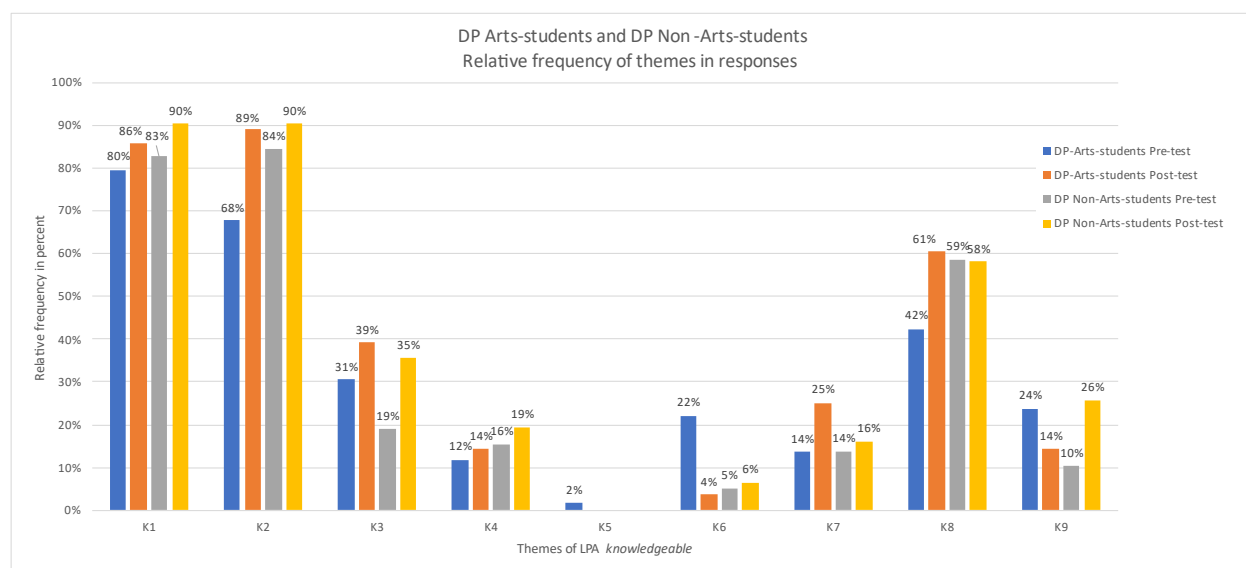


*Figure 45: Relative frequency of themes – LPA 'knowledgeable'*

Apart from the changes between groups (DP Arts- versus DP Non-Arts-students) in pre- and post-tests it is helpful to look at the change of relative frequency of themes per category across all student examples: figure 46 shows an increase in relative frequency of responses across categories in themes [K1]–[K4], [K8] and [K9]. In contrast, there is a general decrease in themes [K6] and [K7].[122]

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[120] [K9] Mediating through/with knowledge
[121] Appendix 12: 'Knowledgeable' – Relative frequency of themes in DP Arts-students versus DP Non-Arts-students responses
[122] Appendix 12: 'Knowledgeable' – Relative frequency of themes within each category
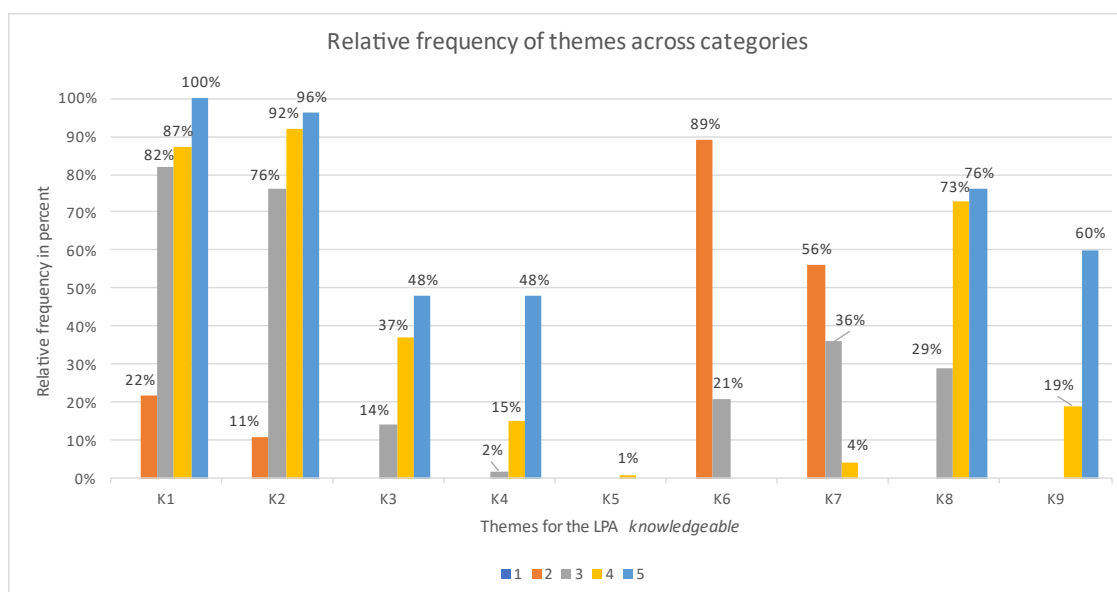
*Figure 46: Relative frequency of themes across categories - LPA 'knowledgeable'*

It is further noteworthy that with a change of frequency of themes across categories, the complexity of a theme might also change. However, this change of complexity was not reflected in the relative frequency, but rather in the category itself that was assigned to each example. For example, in category 3 responses for the theme [K1] (conceptual understanding) demonstrate a passive engagement or generalisations (as opposed to proactive engagement):

> *"At school we learn about other cultures, the history of segregation of different cultures and ethnics [sic]."*

> *"[...] immigrants from one country have a negative image, even though that image does not represent most of them."*

In category 4 students are connecting their knowledge and understanding to concepts in a meaningful way, for example through interaction with and relating to conceptual ideas:

> *"When talking with my South Korean friend and an American and explaining why the sounds the letters "R" and "L" make are hard to pronounce differently since my friend is from [S]outh [K]orea and their language does not have many "L" sounds"*

In category 5 the conceptual understanding is increasingly nuanced and larger conceptual ideas are applied to specific situations. Pro-active engagement allows students to connect their knowledge and understanding with real-life experiences and to relate to diverse perspectives. For example:

*"When I attended a public [...] service at our local mosque, I felt knowledgeable because I knew how to act and interact with the members of the mosque. I had studied Islam in depth and knew culturally what was and wasn't acceptable. It was emotionally very rewarding to get to be with members of my community during a tragic event despite not being Muslim myself."*

### *Open-minded*

In the student responses to the LPA *open-minded* (pre-test: N143; post-test: N67) all themes were represented. As shown in figure 47 below, theme [O1][123] was the most frequently represented theme across responses in both, pre-test (83%) and post-test (76%). However, the theme did demonstrate a slight decline in frequency between pre- and post-tests. This was followed by themes [O3][124] (pre-test: 54%; post-test 61%) and [O2][125] (pre-test: 50%; post-test: 58%) which both showed a slight increase between pre- and post-tests. Theme [O4][126] was represented similarly in pre-test (20%) and post-test (19%).[127] The trends between pre-test and post-test of DP Arts-students (pre-test: N76; post-test: N24) versus DP Non-Arts-students (pre-test: N67; post-test: N35) varied slightly across themes. Similar to the general trend, there was a decrease in relative frequencies in the theme [O1] in the DP Arts-students group (-11%). However, the DP Non-Arts-students group showed an increase in this theme (+5%). In theme [O2] there was a slightly increasing trend in the DP Arts-students group (+1%) and slightly greater increase in the DP Non-Arts-students group (+9%). In theme [O3], the trends were inverted with a greater increase in the DP Arts-students group (+12%) and less in the DP Non-Arts-students group (+3%). In theme [O4], the trends were similar in both groups (DP Arts-students -2%; DP Non-Arts-students +1%).[128]

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[123] [O1] Appreciation of heritage and identity
[124] [O3] Grow from experience
[125] [O2] Curiosity for different perspectives and beliefs
[126] [O4] Willingness to adapt
[127] Appendix 12: 'Open-minded' – Overall responses
[128] Appendix 12: 'Open-minded' – Relative frequency of themes in DP Arts-students versus DP Non-Arts-students responses
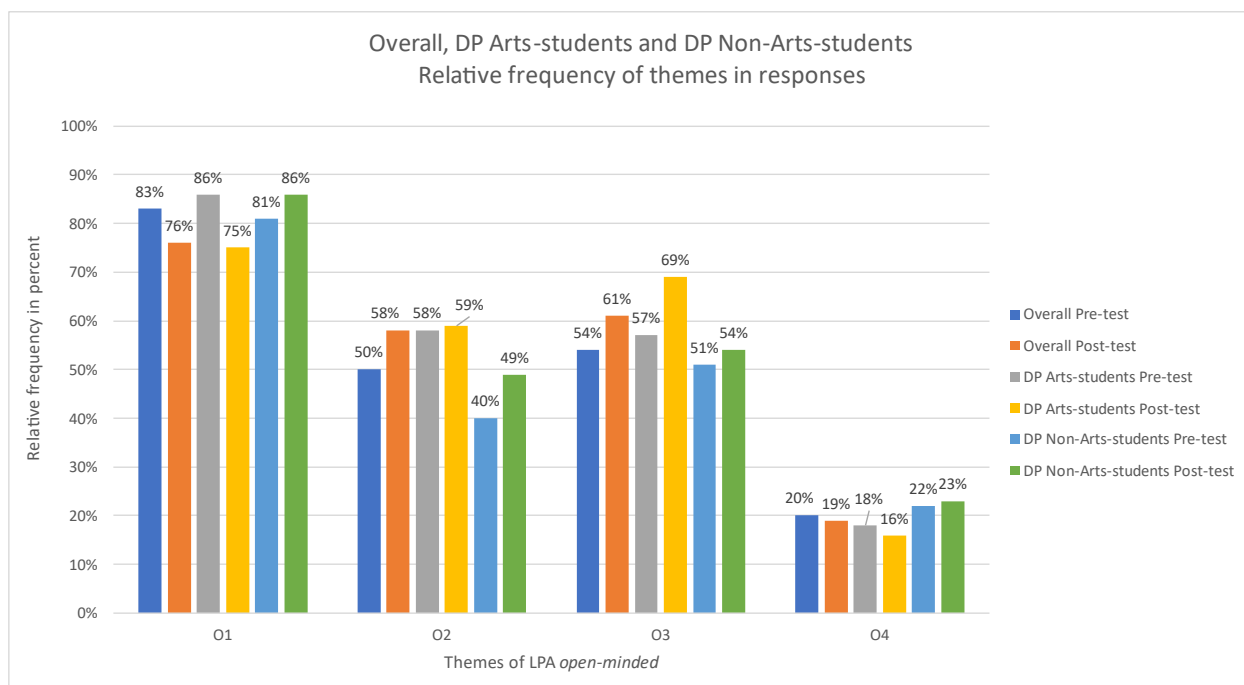
*Figure 47: Themes overall – LPA 'open-minded'*

Figure 48 below shows differences in the relative frequency of themes in each category across all student examples. A universal theme across categories is theme [O1] with representation of over 80% in categories 3 (N95), 4 (N101) and 5 (N22). It is important to mention that the theme [O1] occurring in category 2 had a more negative connotation, for example in the sense that something had to be done or was expected, rather than demonstrating active openness towards another culture as characteristic for category 2 responses, for example:

> *"When I was to teach [E]nglish to new immigrants at the Open Door Society. I had to respect the immigrant's culture and be openminded with their low [E]nglish level."*

The relative frequencies of themes [O2], [O3] and [O4] are increasing across category 3 (N95: [O2] 35%, [O3] 37%, [O4] 3%), category 4 (N101: [O2] 58%, [O3] 69%, [O4] 22%) and category 5 (N22: [O2] 95%, [O3] 82%, [O4] 100%) showing an increasing growth and adaptation mind-set across categories. Since theme O4 appears least often in general, it is important to note that it is particularly representative for category 5 responses.[129]

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[129] Appendix 12: 'Open-minded' – Relative frequency of themes within each category
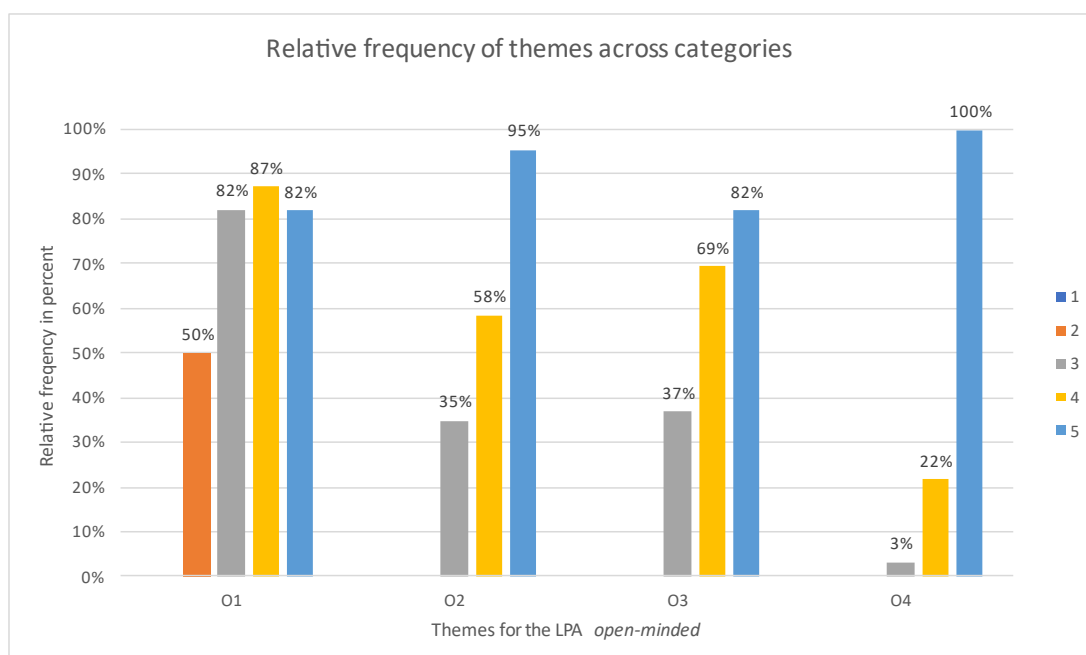
*Figure 48: Relative frequency of themes for the LPA 'open-minded' across categories*

## Communicator (Forms of Communication)

In the student responses[130] to the LPA *communicator* all themes were represented.[131] Possibly due to the nature of the question for this LPA,[132] theme [C2][133] was the most frequently represented theme across responses in both, pre-test (92%) and post-test (89%). For this theme [C2] there was a slightly decreasing trend in both, the DP Arts-students group between pre-test (92%) and post-test (90%) and for the DP Non-Arts-students group (pre-test 92%, post-test 88%). Theme [C1][134] was represented similarly across all responses in the pre-test (26%) and post-test (23%). Likewise, there was not much difference in this theme [C1] between pre- and post-test frequencies between DP Arts-students (pre-test 26%, post-test 24%) and DP Non-Arts-students (pre-test 25%, post-test 23%). Themes [C3][135] (pre-test: 12%; post-test 30%) and [C4][136] (pre-test: 16%; post-test: 30%)

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[130] Number of responses to this question: Overall: pre-test N105, post-test N47; DP Arts-students: pre-test N53, post-test N21; DP Non-Arts-students: pre-test N52, post-test N26.
[131] Appendix 12: 'Communicator' – Relative frequency of themes in overall responses
[132] Are there other forms of communication or expression you use, when you can't express yourself through language? Can you share an example of a time or situation when you used specific communication skills in a cross-cultural situation? Please describe.
[133] [C2] Multimodal communication
[134] [C1] Multilingual communication
[135] [C3] Listening and appreciation
[136] [C4] Collaboration

showed an increasing trend in all responses between pre- and post-tests. There was an increasing trend of relative frequencies for theme [C3] especially in the DP Arts-students group (pre-test 13%; post-test 24%) but also in the DP Non-Arts-students group (pre-test 12%; post-test 15%). For theme [C4] there was a slightly increasing trend in the DP Arts-students group (pre-test 13%; post-test 14%) and a slightly decreasing trend in the DP Non-Arts-students group (pre-test 19%; post-test 15%).[137]
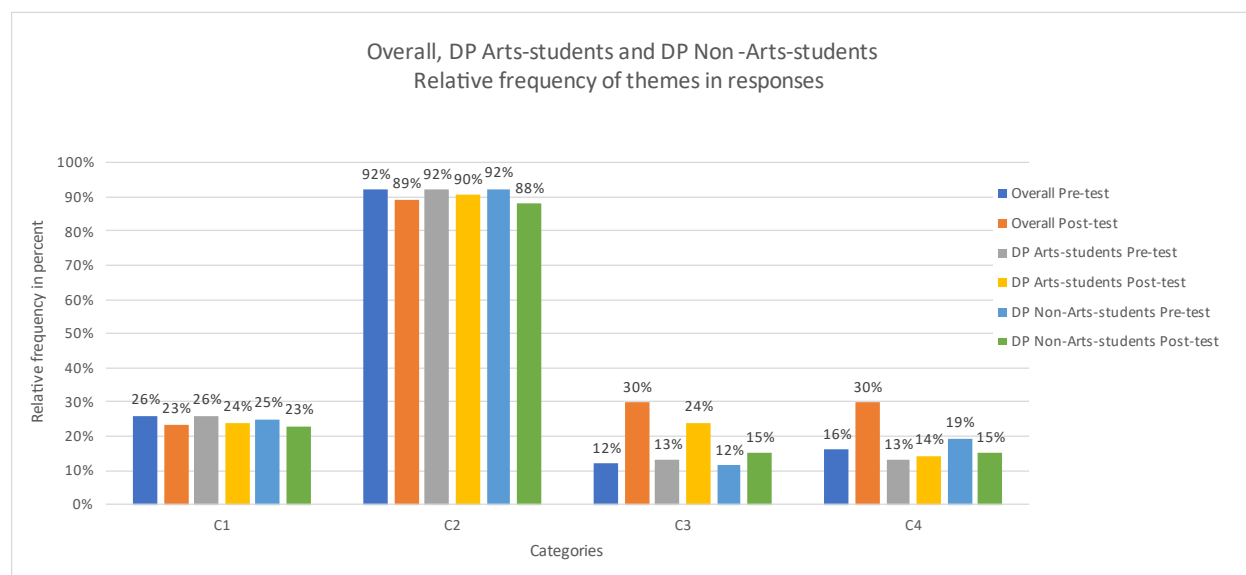


*Figure 49: Themes overall – LPA 'communicator'*

Figure 50 shows differences in the relative frequency of themes in each category[138] across all student examples. A universal theme across categories is theme [C2] with representation of 56% in category 2, over 90% in categories 3 and 4, and 100% in category 5. It is also interesting to note that there is an increasing trend across categories for themes [C3] (category 3 = 7%, category 4 = 18%, category 5: 73%) and [C4] (category 3 = 3%, category 4 = 37%, category 5 = 45%) showing that these themes are increasingly representative of categories 4 and 5.[139]

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[137] Appendix 12: 'Communicator' – Relative frequency of themes in DP Arts-students versus DP Non-Arts-students responses

[138] The number of responses for each category were as follows: category 1: N2, category 2: N9, category 3: N90, category 4: N51, category 5: N11.

[139] Appendix 12: 'Communicator' – Relative frequency of themes within each category
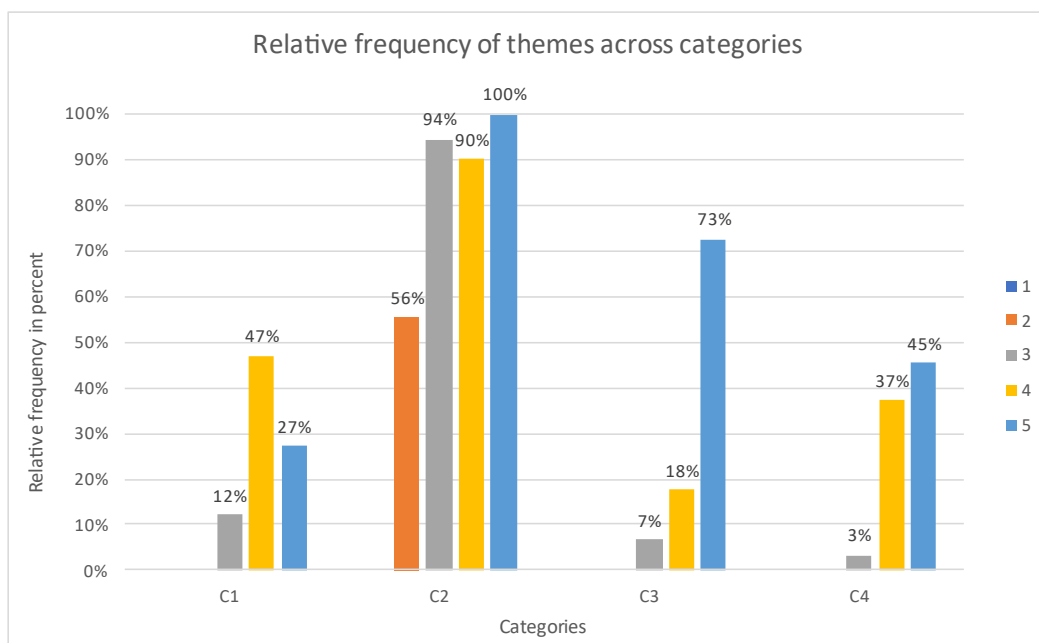
*Figure 50: Relative frequency of themes for the LPA 'communicator' across categories*

## Inquirer, Thinker, Reflective (Critical Thinking)

In the student responses to the question on critical thinking[140] (LPAs *inquirer, thinker, reflective*) all themes were represented. For the LPA *inquirer* overall representation of themes, meaning across all responses, was generally low (≤30%), but there was an increase between pre- and post-test of themes in general, ([I1][141] +9%, [I2][142] +8%, [I3][143] +19%, [I4][144] +6%).[145] As shown in Figure 51 there was a greater increase in the DP Arts-students group in themes [I1] (DP Arts-students +16%, DP Non-Arts-students 0%), [I3] (DP Arts-students +29%, DP Non-Arts-students +9%), and [I4] (DP Arts-students +9%, DP Non-Arts-students +5%), but a greater increase in the DP Non-Arts-students group in theme I2 (DP Arts-students +0%, DP Non-Arts-students +10%) although this group also had a lower pre-test representation (DP Arts-students 17%, DP Non-Arts-students 5%).[146]

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[140] Number of responses to this: Overall: pre-test N90, post-test N44; DP Arts-students: pre-test N48, post-test N18; DP Non-Arts-students: pre-test N42, post-test N26.
[141] [I1] Cultivate curiosity
[142] [I2] Research skills
[143] [I3] Learning skills
[144] [I4] Sustained and life-long learning
[145] Appendix 12: 'Inquirer' – Relative frequency of themes in overall responses
[146] Appendix 12: 'Inquirer' – Relative frequency of themes in DP Arts-students versus DP Non-Arts-students responses
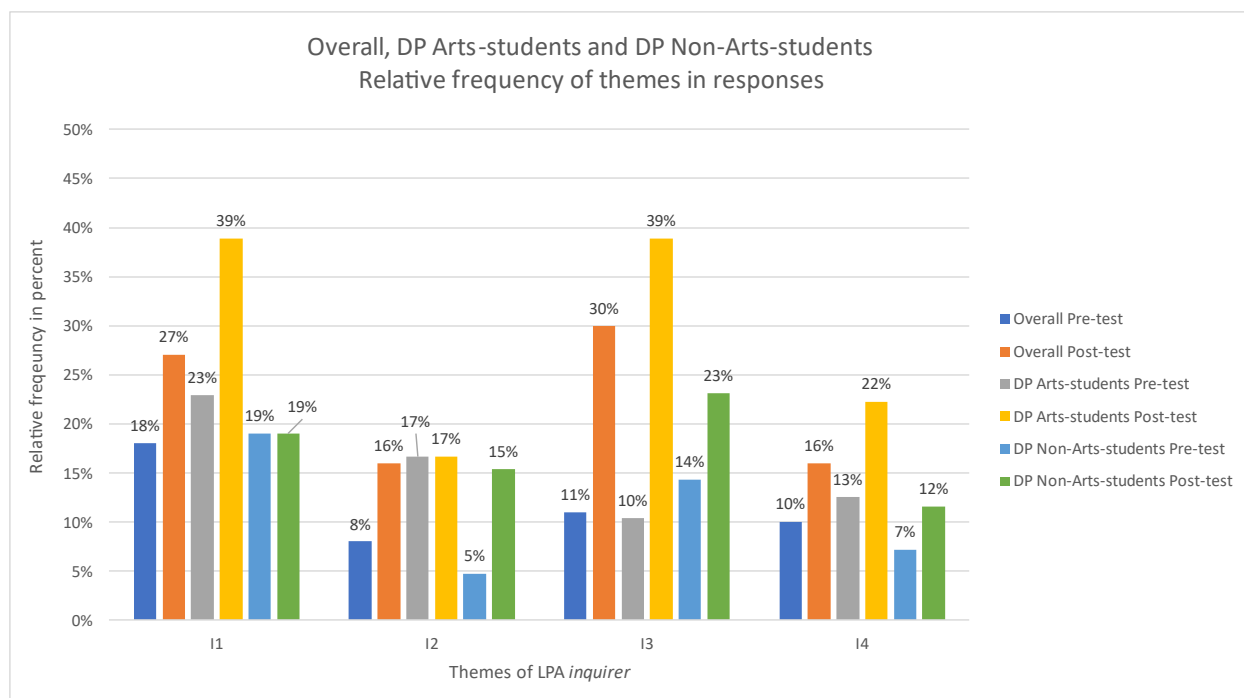
*Figure 51: Themes overall – LPA 'inquirer'*

As seen in figure 52, themes for LPA *thinker* were generally better represented than those for the LPA *inquirer,* with theme [T3][147] being the most prominent (overall pre-test 64%, post-test 66%), followed by [T1][148] (overall pre-test 34%, post-test 36%), [T2][149] (overall pre-test 23%, post-test 25%), and [T4] (overall pre-test 18%, post-test 20%). Theme [T5] was least represented and declined between pre-test (6%) and post-test (2%).[150] However, there was not as much difference between pre- and post-test or between DP Arts-students ([T1] +1%, [T2] -6%, [T3] +5%, [T4][151] +5%, [T5][152] -2%) and DP Non-Arts-students ([T1] +4%, [T2] +7%, [T3] -2%, [T4] +0%, [T5] - 2%).[153]

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[147] [T3] Broad thinking
[148] [T1] Critical and creative thinking and problem-solving
[149] [T2] Informed and ethical decision-making
[150] Appendix 12: 'Thinker' – Relative frequency of themes in overall responses
[151] [T4] Deep thinking
[152] [T5] Power and privilege
[153] Appendix 12: 'Thinker' – Relative frequency of themes in DP Arts-students versus DP Non-Arts-students responses
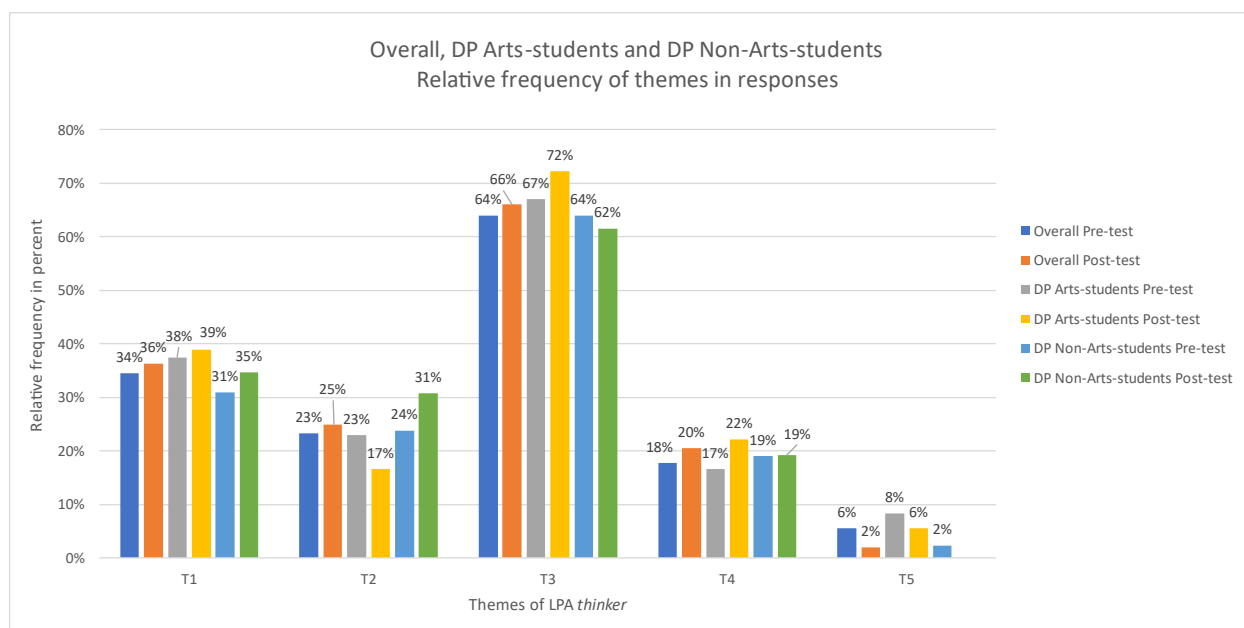
*Figure 52: Themes overall – LPA 'thinker'*

For the LPA *reflective* representation across responses was strongest for theme R3[154] which also showed the greatest increase between pre-test (57%) and post-test (70%). This was followed by theme [R1][155] (pre-test 49%, post-test 52%) and theme [R4][156] (pre-test 22%, post-test 27%). The least represented theme was [R2][157] (pre-test 9%, post-test 11%).[158] As seen in figure 53, there was a higher frequency and greater increase in the DP Non-Arts-students group in theme [R1] (DP Arts-students +0%; DP Non-Arts-students +7%) and in theme [R2] (DP Arts-students -8%; DP Non-Arts-students +9%). In theme [R3], despite lower initial frequency, DP Arts-students demonstrated a greater increase (DP Arts-students +19%; DP Non-Arts-students +10%). In theme [R4], also starting with a lower initial frequency, DP Arts-students demonstrated an increasing trend (+16%), while DP Non-Arts-students demonstrated a decreasing trend (-6%).[159]

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[154] [R3] Perspective-taking
[155] [R1] Consideration of interconnectedness
[156] [R4] Flexibility
[157] [R2] Personal development
[158] Appendix 12: 'Reflective' – Relative frequency of themes in overall responses
[159] Appendix 12: 'Reflective' – Relative frequency of themes in DP Arts-students versus DP Non-Arts-students responses

291
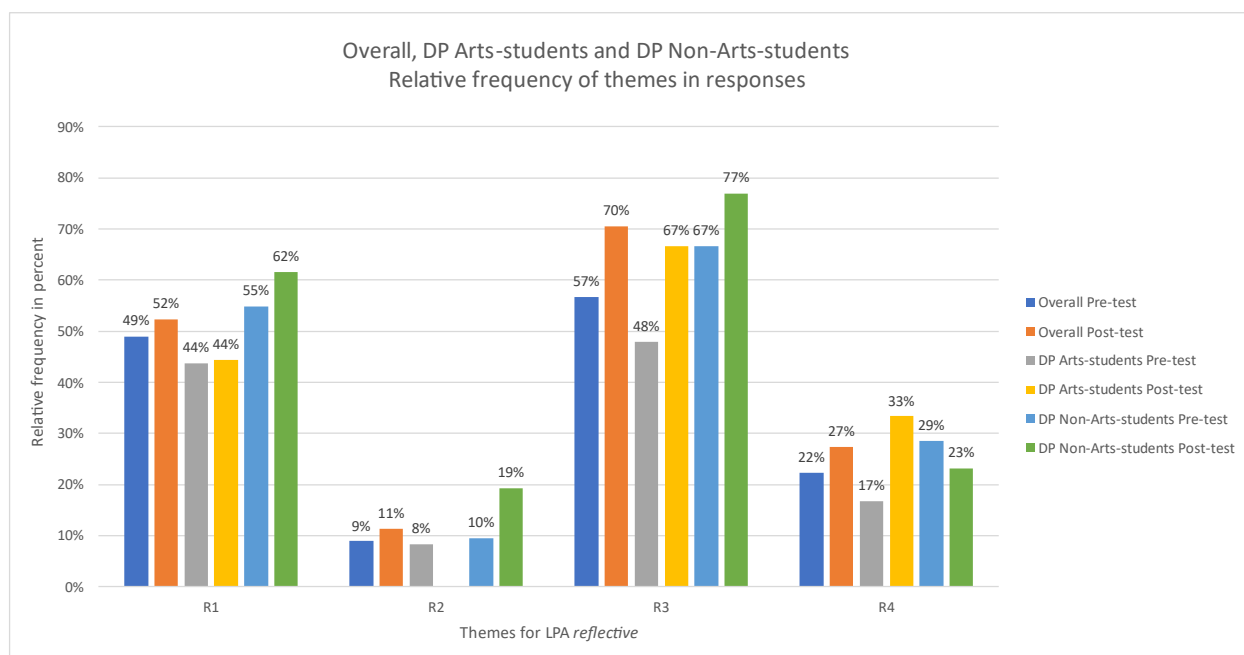
*Figure 53: Themes overall – LPA 'reflective'*

Figure 54 below shows differences in the relative frequency of themes in each category across (valid) student responses. For the LPA *inquirer*, the frequency of responses is elevated in category[160] 4 responses in themes [I1] (Cat3: 6%, Cat4: 33%, Cat5: 19%), [I2] (Cat3: 2%, Cat4: 19%, Cat5: 10%), and [I4] (Cat3: 2%, Cat4: 20%, Cat5: 14%). In theme [I3] there was an increasing trend across categories 3 (8%), 4 (20%), and 5 (29%) which was also distinctly observable for the LPA *thinker*, especially in themes [T1] (Cat3: 19%, Cat4: 42%, Cat5: 48%), [T2] (Cat3: 8%, Cat4: 19%, Cat5: 76%), and [T3] (Cat2: 20%, Cat3: 40%, Cat4: 83%, Cat5: 90%), but also, although less so, in themes [T4] (Cat3: 8%, Cat4: 23%, Cat5: 24%) and [T5] (Cat3: 0%, Cat4: 4%, Cat5: 10%). For the LPA *reflective* the increasing trend was again evident in themes [R1] (Cat3: 42%, Cat4: 51%, Cat5: 57%), [R3] (Cat3: 46%, Cat4: 71%, Cat5: 81%) and [R4] (Cat3: 17%, Cat4: 25%, Cat5: 52%). In contrast, for theme [R2], the frequency of responses was elevated in category 4 responses (Cat3: 6%, Cat4: 12%, Cat5: 10%).[161]

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[160] Category is abbreviated as Cat in the parentheses for better readability.

[161] Appendix 12: 'Inquirer', 'Thinker', 'Reflective' – Relative frequency of themes within each category
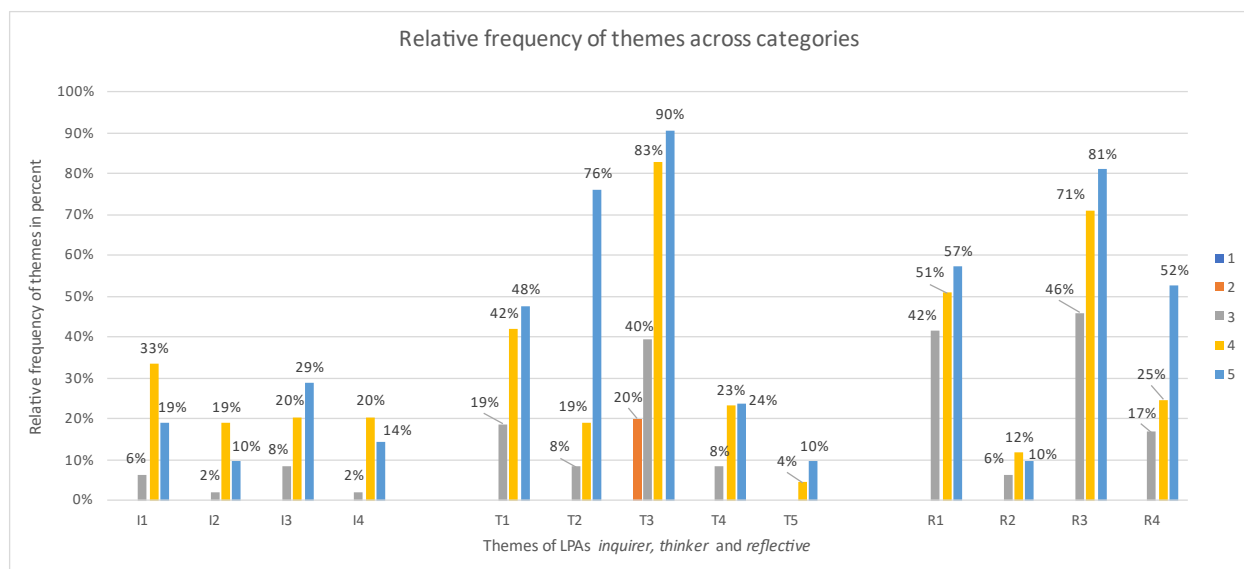
Figure 54: Relative frequency of themes for the LPAs 'inquirer', 'thinker' and 'reflective' across categories

## Caring and Principled

In the student responses to the question on LPAs *caring* and *principled*[162] all themes were represented. For the LPA *caring* theme [E1][163] was the most frequent across responses in both, pre-test (79%) and post-test (87%). This was followed by themes [E3][164] (pre-test: 38%; post-test 47%) and [E2][165] (pre-test: 12%; post-test: 13%).[166] The trends between pre-test and post-test of DP Arts-students versus DP Non-Arts-students were similar in theme [E1] (DP Arts-students: pre-test 84%, post-test 89%; DP Non-Arts-students: pre-test 74%, post-test 86%). Theme [E2] basically remained similar between both groups, albeit a slight decrease in the responses of DP Arts-students (pre-test 13%, post-test 11%, [-2%]) versus a slight increase in the responses of DP Non-Arts-students (pre-test 11%, post-test 14%, [+3%]). In contrast, for theme [E3] DP Arts-students demonstrated a strongly increasing trend (pre-test: 32%, post-test: 58%, [+26%]) while DP Non-Arts-students showed a decline (pre-test 45%, post-test 39%, [-6%]).[167]

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[162] Number of responses to this question: Overall: pre-test N76, post-test N47; DP Arts-students: pre-test N38, post-test N19; DP Non-Arts-students: pre-test N38, post-test N28
[163] [E1] Compassion
[164] [E3] Impact
[165] [E2] Service
[166] Appendix 12: 'Caring' – Relative frequency of themes in overall responses
[167] Appendix 12: 'Caring' – Relative frequency of themes in DP Arts-students versus DP Non-Arts-students responses
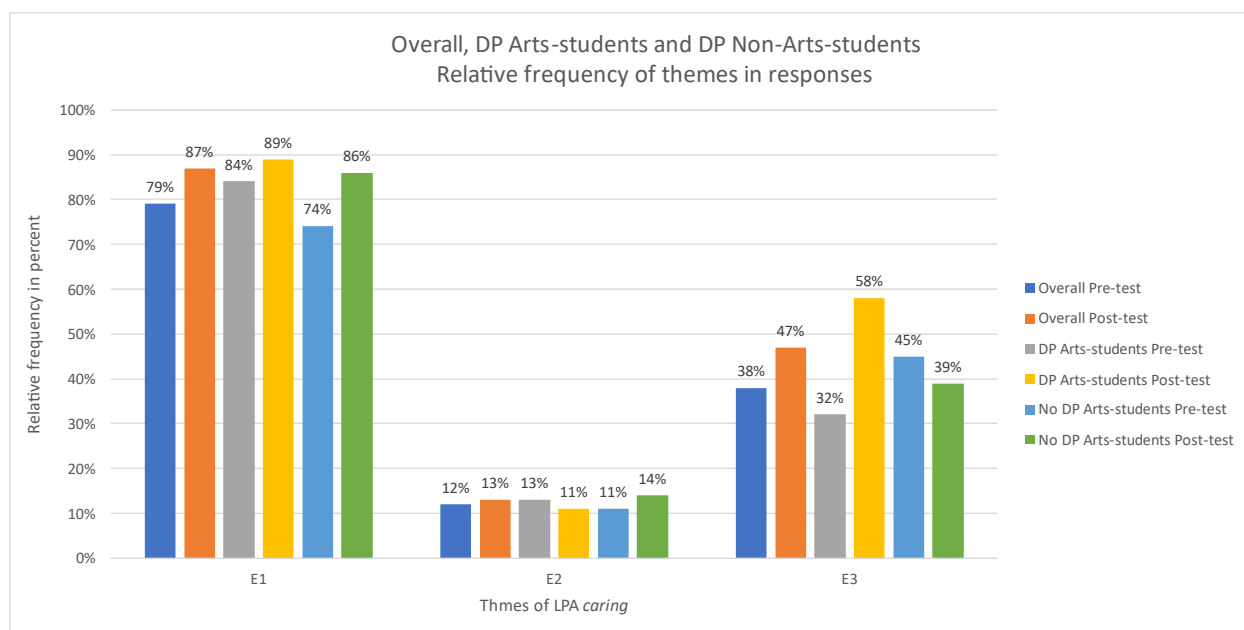
*Figure 55: Themes overall – LPA 'caring'*

For the LPA *principled* themes P1[168] and P4[169] were minimally represented in the examples chosen by students in answer to this question ([P1] pre-test 1%, post-test 2%; [P4] pre-test 1%, post-test 0%). [P3][170] was the most frequently represented theme across responses, but with a decreasing trend (-13%) between pre-test (41%) and post-test (28%). This was followed by theme [P2][171] which also showed a slightly decreasing trend (-6%) between pre-test (29%) and post-test (23%).[172] DP Arts-students demonstrated a decrease in theme [P2] (pre-test 24%, post-test 11%, [-13%]), and while DP Non-Arts-student responses also decreased, this trend was less distinct (pre-test 34%, post-test 32%, [-2%]). Likewise, for both groups a down-ward trend in theme [P3] was observed (DP Arts-students: pre-test 34%, post-test 26%, [-8%]; DP Non-Arts-students: pre-test 47%, post-test 29%, [-18%]).[173]

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[168] [P1] Integrity and honesty
[169] [P4] Responsibility
[170] [P3] Respect for dignity and rights
[171] [P2] Fairness and justice
[172] Appendix 12: 'Principled' – Relative frequency of themes in overall responses
[173] Appendix 12: 'Principled' – Relative frequency of themes in DP Arts-students versus DP Non-Arts-students responses

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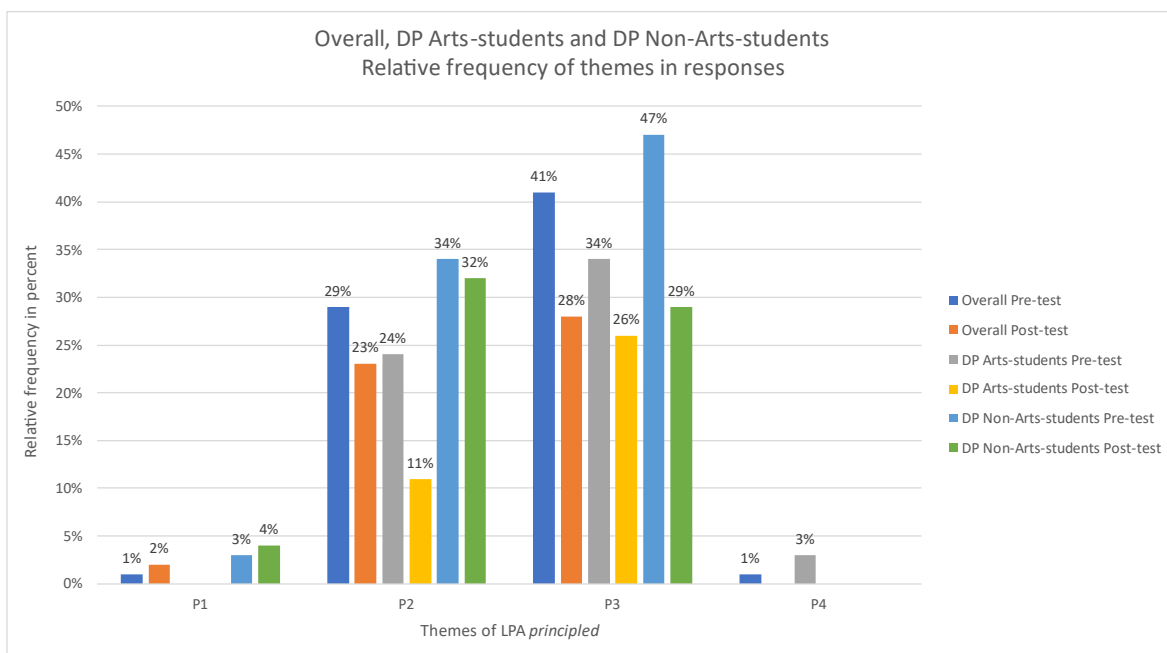
*Figure 56: Themes overall – LPA 'principled'*

Among the additional themes (derived from student responses and marked as EP)*, [EP7][174] was the most frequently represented across responses in both, pre-test (46%) and post-test (51%). This was followed by themes [EP5][175] (pre-test 20%; post-test 28%), [EP6][176] (pre-test 11%; post-test 17%), [EP8][177] (pre-test 4%; post-test 15%), and [EP9][178] (pre-test 2%; post-test 10%). All themes showed an increasing trend overall trend.[179] However, when comparing pre-test and post-test of DP Arts-students versus DP Non-Arts-students, the distribution of frequencies of themes diverted slightly from the overall trend. For theme [EP5], both groups showed an increasing trend although for DP Arts-students this trend was stronger (DP Arts-students: pre-test 24%, post-test 37%, [+13%]; DP Non-Arts-students: pre-test 16%, post-test 21%, [+5%]). Similarly, an increasing trend was seen in theme [EP8] for both groups (DP Arts-students: pre-test 5%, post-test 21%, [+16%]; DP Non-Arts-students: pre-test 3%, post-test 11%, [+8%]). For theme [EP6], there was a strong increase in the DP Arts-students group (pre-test 8%, post-test 21%, [+13%]) but little change in the DP Non-Arts-students group (pre-test 13%, post-test 14%, [+1%]). Themes [EP7]

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[174] [EP7] Relating and connecting
[175] [EP5] Inclusiveness
[176] [EP6] Non-judgemental sensitivity
[177] [EP8] Concern and regard
[178] [EP9] Vulnerability and identity
[179] Appendix 12: 'Caring' and 'Principled' – Relative frequency of themes in overall responses (additional themes)

and [EP9] decreased for the DP Arts-students group ([EP7] pre-test 47%, post-test 37%, [-10%]; [EP9] pre-test 3%, post-test 0%, [-3%]), whereas DP Non-Arts-students showed an increase ([EP7] pre-test 45%, post-test 50%, [+ 5%]; [EP9] pre-test 0%, post-test 17%, [+17%]).[180]
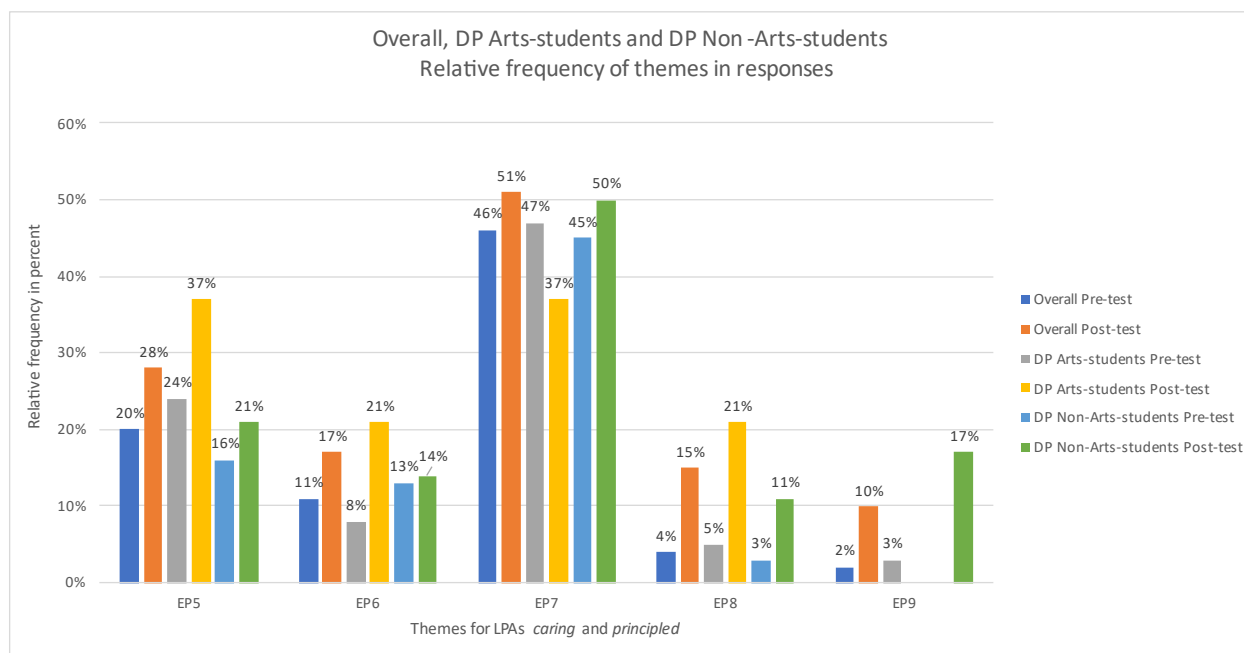


*Figure 57: Themes overall – LPA 'caring' and 'principled'*

Figure 58 illustrates the relative frequency of themes within student responses across each of the categories. There are no themes represented in category 1, but themes E1, P3 and EP9 appear in category 2. It is important to mention that these themes bear the connotations or characteristics of that category and are not an entirely unbiased representation of the theme itself, for example:

Theme E1:

*"I steered clear of a sensitive topic or taboo topic when talking to someone of a different culture. Especially if [...] they told me [it] was a sensitive or taboo topic."*

Theme P3:

*"Refraining from saying derogatory terms."*

Theme EP9:

*"[...] when I made my [J]ewish friend understand my culture [...]."*

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[180] Appendix 12: 'Caring' and 'Principled' – Relative frequency of themes in DP Arts-students versus DP Non-Arts-students responses (additional themes)

In themes [E1], [E2], [E3], [P2], [P3], [EP6], and [EP7] there is an increasing trend of frequency of themes from categories 3 through 5 with category 5 holding the highest frequency of examples with evidence of the respective themes. [P1] (Cat4: 3%) and P4 (Cat5: 8%) are rarely represented in student examples. For themes [EP5] and [EP8], the highest frequency of examples is in category 4, while category 4 has the lowest frequency of examples in theme [EP9].[181]
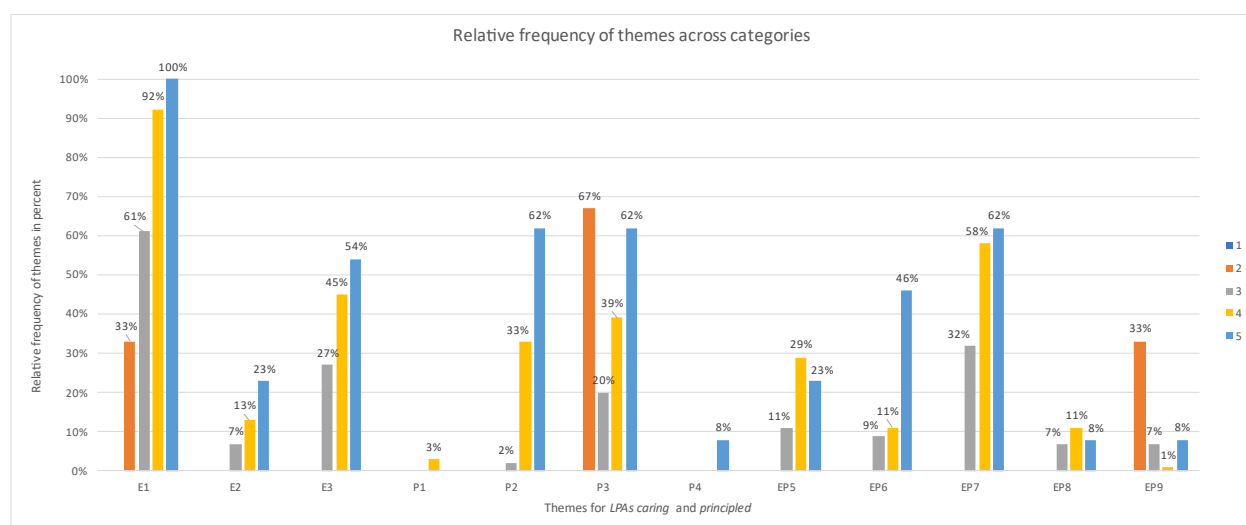


*Figure 58: Relative frequency of themes across categories - LPAs 'caring' and 'principled*

## Risk-taker (Willingness to Act)

In the student responses to the question on students' *willingness to act* (associated with the LPA *risk-taker*)[182] all themes were represented. As seen in figure 59, the representation of themes varied between pre- and post-test. In the pre-test, the most frequently evidenced themes were [A6][183] (45%), [A1][184] (40%), [A9][185] (37%) and [A3][186] (34%), followed by [A5][187] (31%), [A4][188] (26%) and [A8][189] (25%) and the lowest representation of [A7][190] (19%) and [A2][191] (15%).  In

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[181] Appendix 12: 'Caring' and 'Principled' – Relative frequency of themes within each category

[182] Number of responses to this question: Overall: pre-test N95, post-test N52; DP Arts-students: pre-test N48, post-test N26; DP Non-Arts-students: pre-test N47, post-test N26

[183] [A6] Take a stand

[184] [A1] Courage and determination

[185] [A9] Support

[186] [A3] Resourcefulness and resilience

[187] [A5] Participate

[188] [A4] Problem-solving

[189] [A8] Serve

[190] [A7] Reason, de-escalate, mediate

[191] [A2] Innovation

the post-test, theme [A9] (52%) increased to be the most frequent theme, followed by increasing trends in themes [A5] (48%), [A4] (40%), [A8] (35%) and [A2] (31%). [A1] (35%) had decreased from the pre-test, as did themes [A6] (33%), [A3] (31%) and [A7] (15%).[192]

*Table 40: Overview of the relative frequency of themes in descending order*

| Pre-test | | Change | Post-test | |
|---|---|---|---|---|
| **A6** | 45% | -12% | **A9** | 52% |
| **A1** | 40% | -5% | **A5** | 48% |
| **A9** | 37% | +15% | **A4** | 40% |
| **A3** | 34% | -3% | **A1** | 35% |
| **A5** | 31% | +17% | **A8** | 35% |
| **A4** | 26% | +14% | **A6** | 33% |
| **A8** | 25% | +10% | **A2** | 31% |
| **A7** | 19% | -4% | **A3** | 31% |
| **A2** | 15% | +16% | **A7** | 15% |
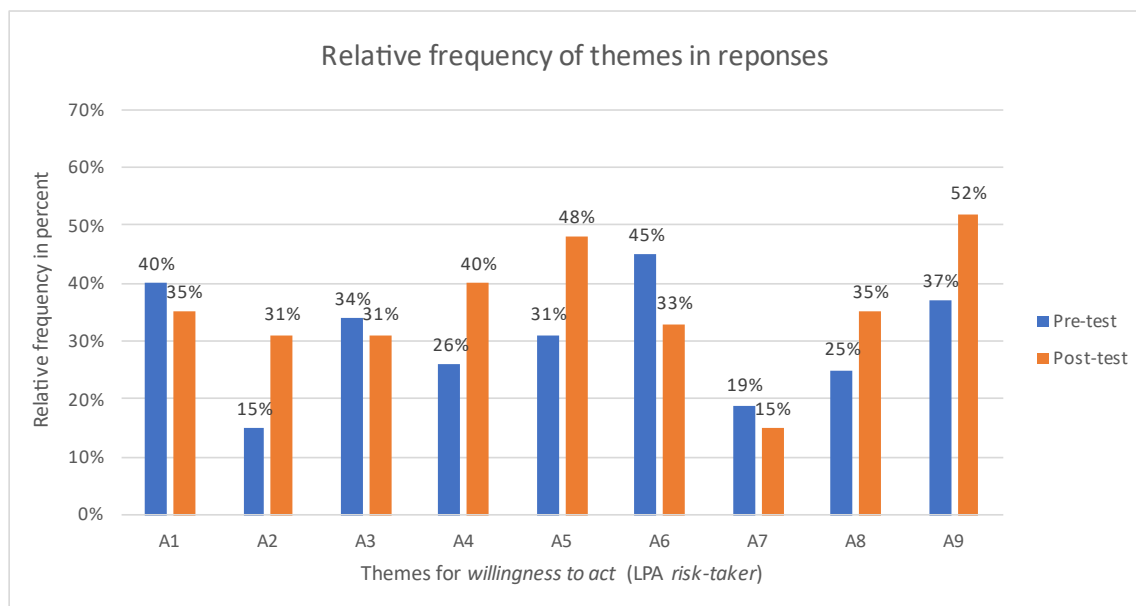


*Figure 59: Themes overall – 'risk-taker' (willingness to act)*

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[192] Appendix 12: 'Risk-taker' – Relative frequency of themes in overall responses

For DP Arts-students, the strongest theme in the pre-test was [A6] (52%) which decreased to 23% in the post-test, and [A1] (48%), which decreased slightly in the post-test to 42%. Another strong theme in the pre-test was [A9] (38%) which increased to be the strongest theme in the post-test (46%). Other relatively frequent themes (above 30%) in the post-test included [A5] (38%, increased from pre-test 25%), [A4] (38%, increased from pre-test 23%), and [A2] (31%, increased from pre-test 17%). Theme [A3] decreased from 31% in the pre-test to 27% in the post-test. Themes [A7] and [A8] increased slightly from the pre-test ([A7] 15%, [A8] 17%) to 19% in the post-test.[193]
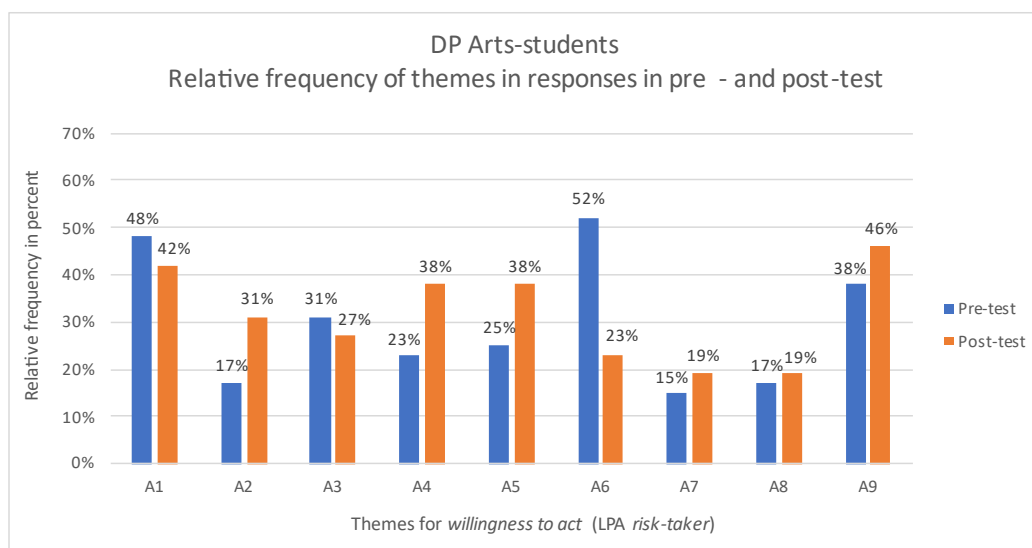


*Figure 60: Relative frequency of themes for LPA 'risk-taker' (willingness to act) - DP Arts-students*

For DP Non-Arts-students, themes in the pre-test were relatively evenly balanced between 30% and 36% except for themes [A2] (13%) and [A7] (23%) (see figure 61). In the post-test, however, three themes had increased to a frequency of 50% or above ([A5] 58%, [+28%]; [A9] 58%, [+22%]; [A8] 50%, [+16%]). Other themes with increases included [A4] (pre-test 30%, post-test 42%, [+12%]) and [A2] (pre-test 13%, post-test 27%, [+14%]). Themes [A1] (pre-test 32%, post-test 31%, [-1%]), [A3] (pre-test 36%, post-test 35%, [-1%]), and A6 (pre-test 36%, post-test 38%,

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[193] Appendix 12: 'Risk-taker' – Relative frequency of themes in DP Arts-students versus DP Non-Arts-students responses

[+2%]) remained fairly unchanged while theme A7 decreased (-11%) from pre-test (23%) to post-test (12%).[194]
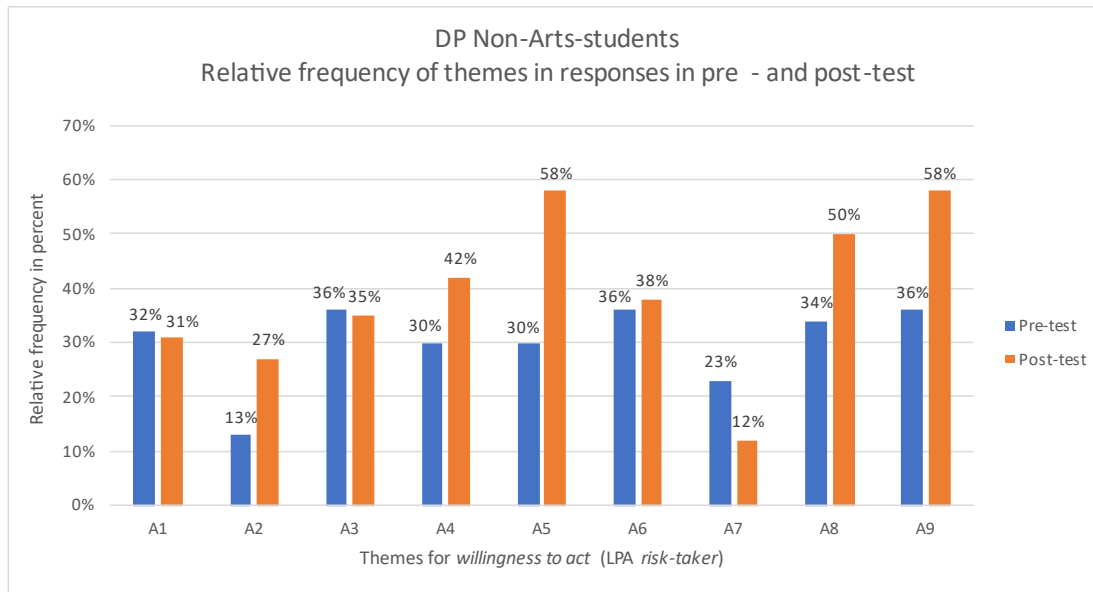


*Figure 61: Relative frequency of themes for LPA 'risk-taker' (willingness to act) - DP Non-Arts-students*

Figure 62 below shows differences in the relative frequency of themes in each category across (valid) student responses. There are no themes represented in category 1, but themes [A5], [A6], [A8] and [A9] appear in category 2. With the exception of theme [A5], all other themes have the highest representation in category 5 with frequencies of 25% and above. Category 4 is represented with the second highest frequencies in all themes except in themes [A5] and [A9]. Theme [A5] shows a decreasing trend across categories (Cat2: 75%, Cat3: 67%, Cat4: 25%, Cat5: 0%). Theme [A9] has the highest frequencies in category 5 (63%) and category 3 (51%), followed by category 4 (31%) and category 2 (25%). It is noteworthy that the themes derived from IB documentation are almost non-existent in category 3 (themes [A1] 2%, [A2] 4%, [A3] 0%, and [A4] 2%). This is not the case in the themes derived from student responses, which feature also in category 3 ([A5] 67%, [A6] 39%, [A7] 12%, [A8] 21%, [A9] 51%).[195]

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[194] Appendix 12: 'Risk-taker' – Relative frequency of themes in DP Arts-students versus DP Non-Arts-students responses
[195] Appendix 12: 'Risk-taker' – Relative frequency of themes within each category
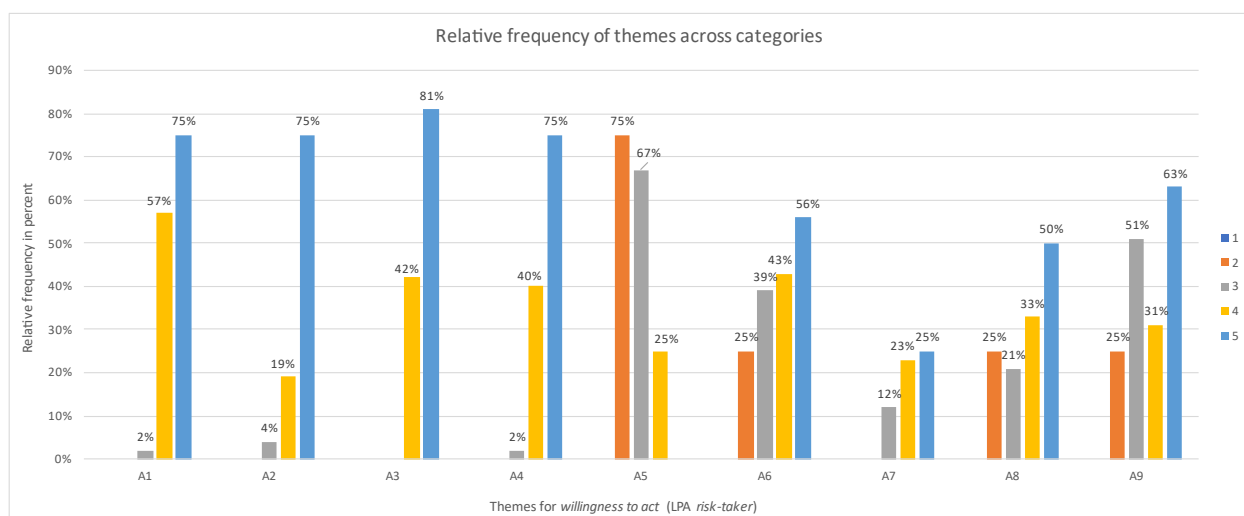
*Figure 62: Relative frequency of themes across categories – LPA 'risk-taker' (willingness to act)*

## Themes across Attributes

The following section will show findings related to the representation of themes from other LPAs within examples given by students in response to a specific LPA. For example, does an example given in response to the LPA *open-minded* show evidence of themes from other LPAs, such as *caring* or *principled*? The 'Total' column shows how many of the responses given for the specific LPA show evidence of themes from another LPA. For example, of a total of 194 responses given in response to LPA *knowledgeable*, 51% demonstrated evidence of themes associated with the LPA *open-minded*. The percentage within categories represents the share of responses given for the specific category that also demonstrate another LPA, for example of 25 responses given for the LPA *knowledgeable* in category 5, 72% showed evidence of themes relating to the LPA *communicator*.

*Knowledgeable*

As seen in figure 63 below, responses for the LPA *knowledgeable* (N194) were well connected with themes from other LPAs, especially with those associated with being *balanced* (65%), critical thinking (*inquirer, thinker, reflective* [63%]) and empathy (*caring, principled* [62%]), but also with *open-mindedness* (51%)*. Furthermore, with each category (1–5) there was an increasing number of examples that evidence themes from other LPAs. Examples in category 5 showed the highest frequency of themes associated with other LPAs. The most dominant themes from the LPAs associated with critical thinking, which were represented in the LPA *knowledgeable* [N122]*, were those related to the LPA *reflective* (85%), followed by those related to the LPA *thinker* (75%), and finally those of the LPA *inquirer* (43%). From the number of responses to the LPA *knowledgeable* which also evidenced the LPA *balanced* [N127], the most dominant theme was [B2][196] (99% compared to 9% for [B3][197] and none for [B1][198]). [199]
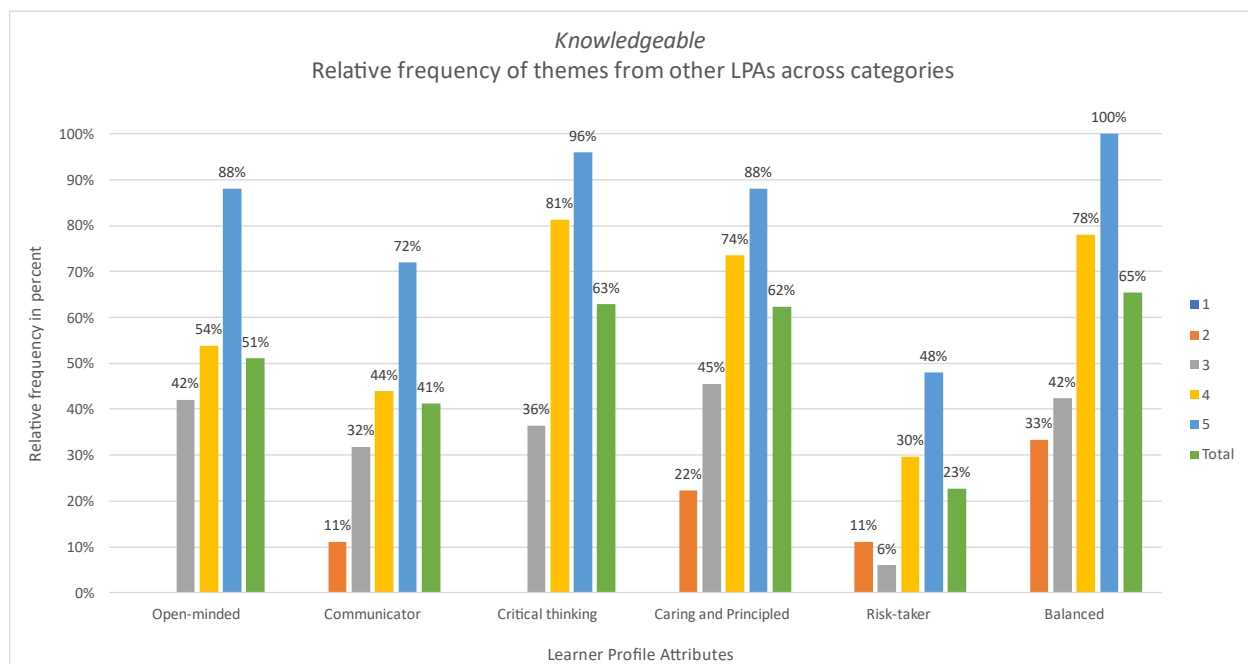


*Figure 63: Themes from other LPAs across categories – LPA 'knowledgeable'*

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[196] [B2] Interdependence with people
[197] [B3] Interconnectedness with the world
[198] [B1] Life-balance
[199] Appendix 13: 'Knowledgeable' – Relative frequency of themes associated with other LPAs

*Open-minded*

Figure 64 below shows that responses to the LPA *open-minded* (N226) were especially associated with LPAs *critical thinking* (67%) and *balanced* (65%), but also with empathy (*caring* and *principled*) (56%) and *communicator* (38%). Within each category, the frequency of themes associated with critical thinking (i.e. *inquirer, thinker, reflective*)*, caring, principled* and *balanced* was strongest in categories 4 and 5, while the frequency of themes associated with *knowledgeable* and *communicator* was stronger in categories 3 and 4. The most dominant themes from the LPAs associated with critical thinking[N152], were those related to the LPA *reflective* (80%), followed by those related to the LPA *thinker* (45%), and finally those of *inquirer* (26%). The most dominant theme from the LPA *balanced* [N148] was [B2] (99%).[200]
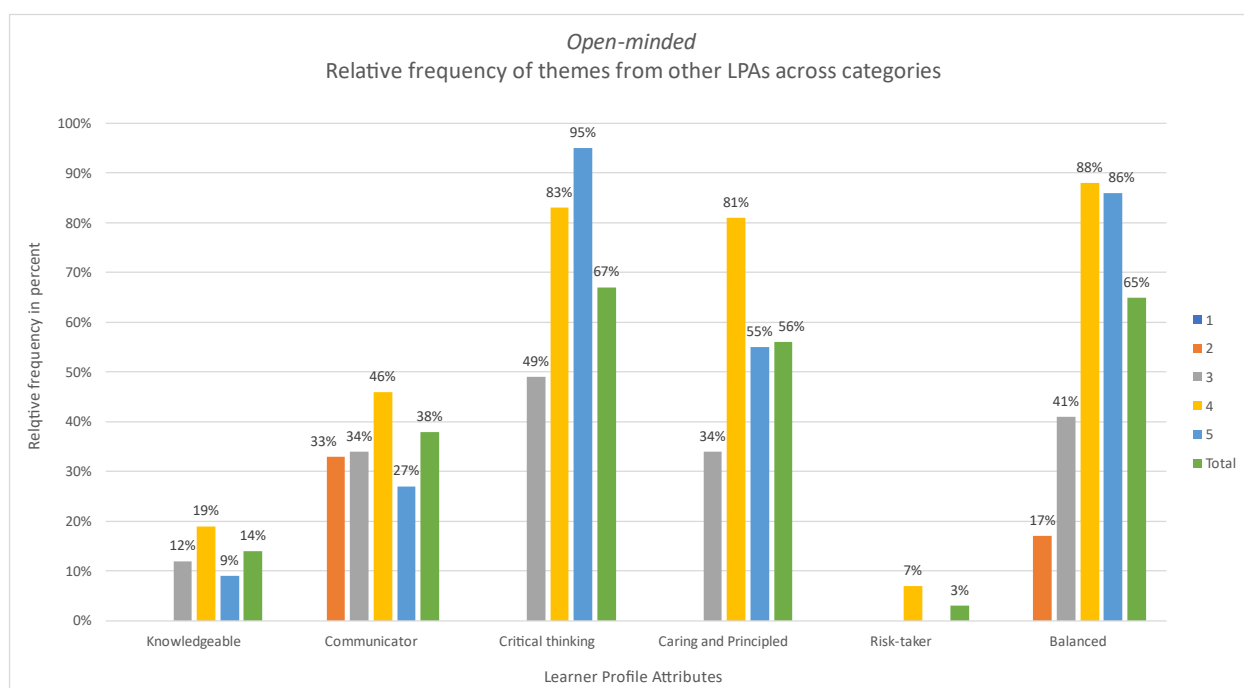


*Figure 64: Themes from other LPAs across categories – LPA 'open-minded'*

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[200] Appendix 13: 'Open-minded' – Relative frequency of themes associated with other LPAs

*Communicator (Forms of Communication)*

In responses for the LPA *communicator* (N163)*,* representation of themes from other LPAs was not quite as strong as seen for the LPAs *knowledgeable* and *open-minded*. Figure 65 below demonstrates that themes associated with the LPAs *balanced* (40%), critical thinking (*inquirer, thinker, reflective*) (37%), willingness to act (*risk-taker*) (31%) and *knowledgeable* (29%) were evidenced across student responses, but all total frequencies were ≤40%. The frequency of themes from other LPAs increased across categories except for the LPA *balanced* where there was a slight decline between categories 4 (69%) and 5 (64%). The most represented themes from the LPAs associated with critical thinking (N61)*,* were those related to the LPA *reflective* (95%), compared to 23% for the LPA *thinker* and 7% for the LPA *inquirer*. The most dominant theme from the LPA *balanced* (N65) was [B2] (99%).[201]
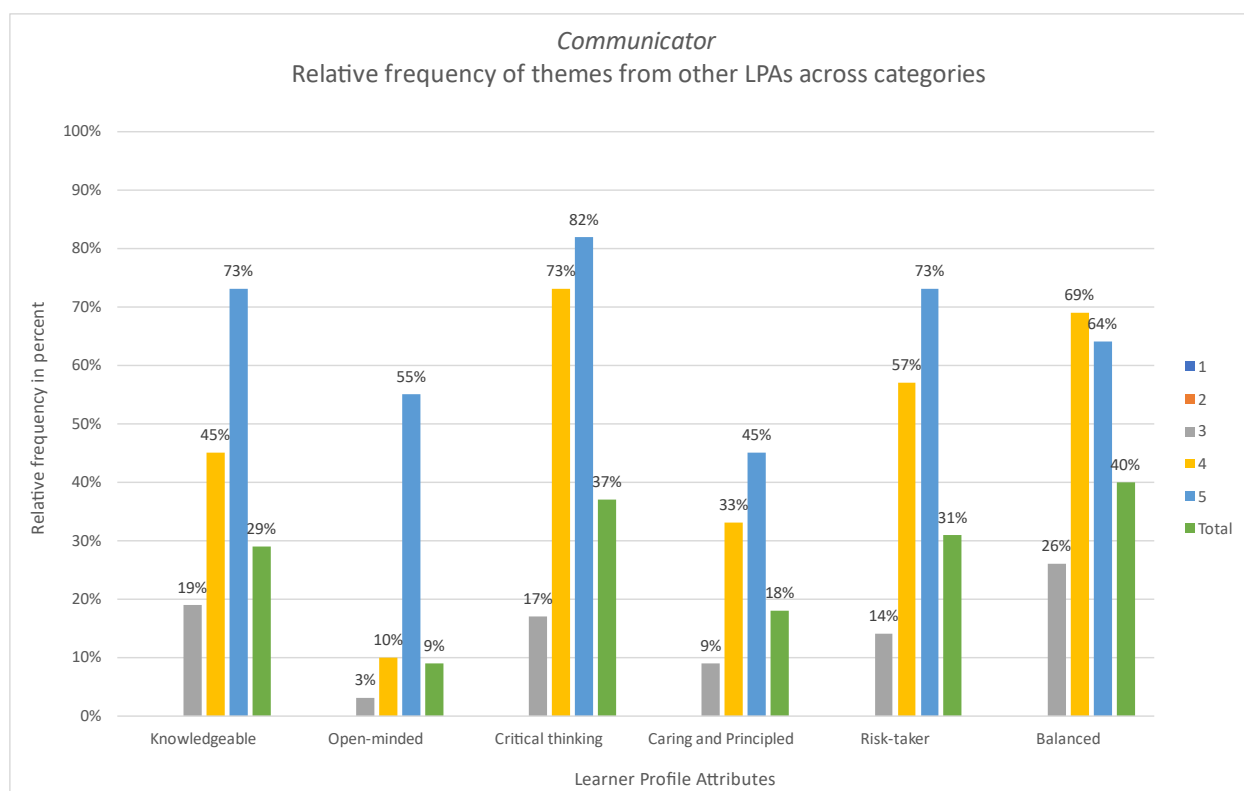


*Figure 65: Themes from other LPAs across categories – LPA 'communicator'*

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[201] Appendix 13: 'Communicator' (Forms of communication) – Relative frequency of themes associated with other LPAs

*Inquirer, Thinker, Reflective (Critical Thinking)*

Figure 66 shows that in the responses for the LPAs associated with critical thinking (*inquirer, thinker, reflective*) (N143), especially themes from the LPAs *balanced* (69%) and *communicator* (56%), but also themes from the LPAs *knowledgeable* (38%), *caring/principled* (38%) and *open-minded* (37%) were well evidenced. Apart from the LPAs *open-minded* and *communicator*, the frequency of themes was stronger within categories 4 and 5. Themes of the LPAs *open-minded* and *communicator* were most frequently present in category 3 responses. The most dominantly represented theme from the LPA *balanced* [N98] was again theme [B2] (98%). (Please note: The spike in category 2 in LPA *balanced* is based on a very low number of responses [3 out of 5]).[202]
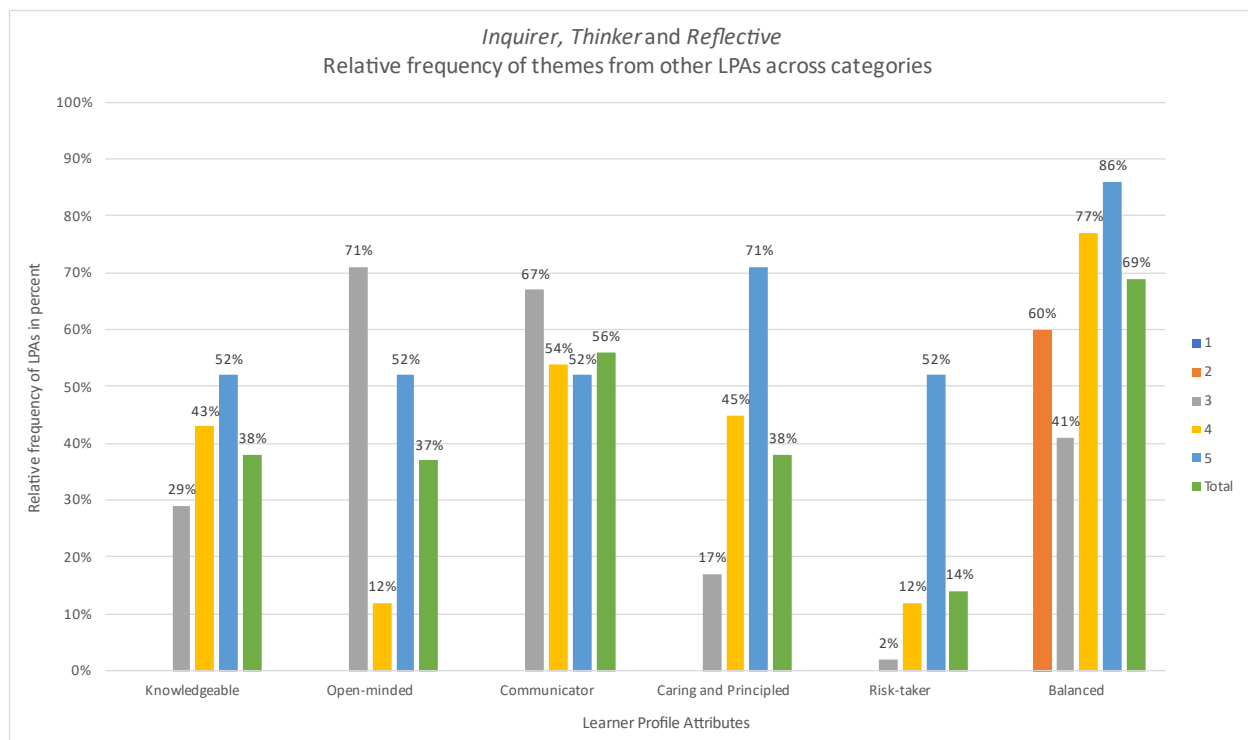


*Figure 66: Themes from other LPAs across categories – LPAs 'inquirer', 'thinker', 'reflective'*

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[202] Appendix 13: 'Inquirer', 'Thinker', 'Reflective' (Critical thinking) – Relative frequency of themes associated with other LPAs

## Caring and Principled

Figure 67 below illustrates that the most frequent and dominant LPA represented in student responses to the question on *caring/principled* (N137) was *balanced* (72%). Other represented LPAs with a frequency well below that of *balanced* included willingness to act (*risk-taker*) (32%), *communicator* (18%), *open-minded* (16%), critical thinking (*inquirer, thinker, reflective*) (15%) and being *knowledgeable* (8%). Except for themes related to the LPAs *open-minded* and *knowledgeable*, the frequency of themes from other LPAs was increasing across categories towards category 5. For the LPAs *knowledgeable* and *open-minded* themes represented in category 4 were fewer than in category 3 and 5 (*knowledgeable*: category 3: 5%, category 4: 4%, category 5: 31%; *open-minded*: category 3: 20%, category 4: 13%, category 5: 23%). The most dominant theme from the LPA *balanced* (N98) was also [B2] (98%).[203]
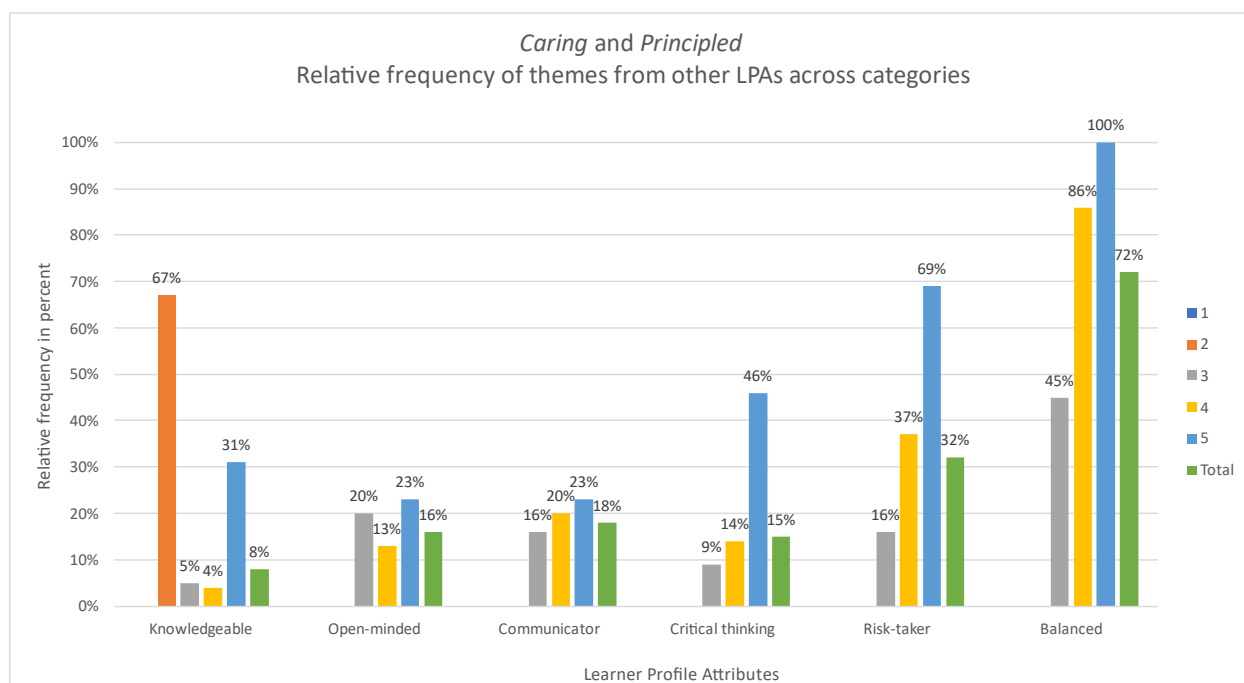


*Figure 67: Themes from other LPAs across categories – LPAs 'caring' and 'principled'*

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[203] Appendix 13: 'Caring' and 'Principled' – Relative frequency of themes associated with other LPAs

*Risk-taker (Willingness to Act)*

Figure 68 below illustrates that in responses to the question on willingness to act (N162), the most frequent themes associated with taking action or willingness to act (*risk-taker*) were the LPAs *balanced* (73%) and *caring/principled* (54%), but also being *knowledgeable* (31%) and critical thinking (*inquirer, thinker*, and *reflective*) (21%) were evidenced consistently across student responses. There are a few occurrences of themes related to *communicator* (4%) and *open-minded* (2%). The most dominant themes from the LPA *balanced* [N118] were [B2] (72%) and [B3] (34%). With the exception of the LPA *open-minded*, the representation of themes from other LPAs was greater in categories 4 and 5 than in categories 1-3. Category 4 held the most responses with themes associated to the LPAs *caring* and *principled*.[204]
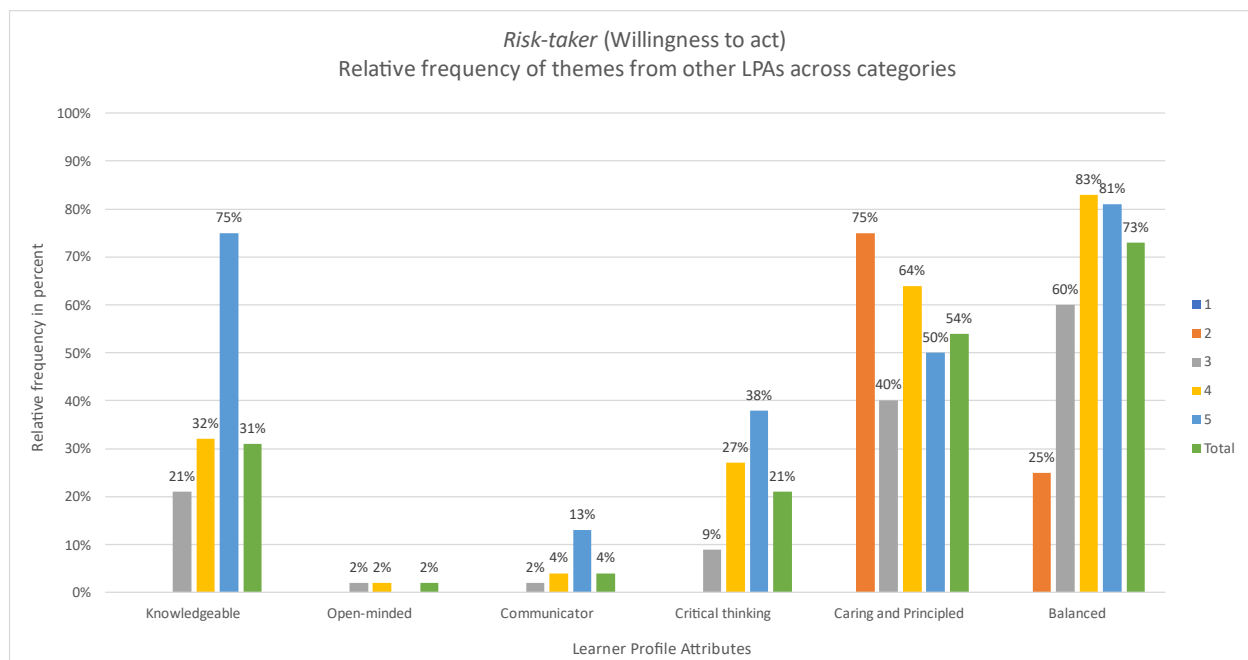


*Figure 68: Themes from other LPAs across categories – LPA 'risk-taker' (willingness to act)*

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[204] Appendix 13: 'Risk-taker' – Relative frequency of themes associated with other LPAs

**Themes of Interconnectedness**

The next section presents the trends of students' awareness of their interconnectedness with themselves (*intrapersonal connectedness*), with others (*interpersonal connectedness*), and with the world (*global connectedness*). Findings show that each LPA has different weights of the three forms of connectedness and that these weightings may change from pre-test to post-test as well as between DP Arts-students and DP Non-Arts-students.

*Knowledgeable*

Examples for the LPA *knowledgeable* were generally related to interpersonal connectedness, meaning 83% of all given examples demonstrated an awareness of interpersonal connectedness and the trends between pre-test and post-test of all responses, as well as for DP Arts-students versus DP Non-Arts-students were similar (pre-test: Total 83%, DP Arts-students 80%, DP Non-Arts-students 86%; post-test: Total 78%, DP Arts-students 79%, DP Non-Arts-students 77%). 58% of all responses showed intrapersonal awareness and while the amount of these examples decreased between pre-test (61%) and post-test (51%) this was only reflected in the examples of DP Non-Arts-students (pre-test 59%, post-test 42%) while DP Arts-students sustained the number of intrapersonal awareness examples (pre-test 61%, post-test 61%). The examples that evidenced an awareness of global connectedness (38% of all examples) increased between pre-test (33%) and post-test (47%) although the increase was stronger in students who did not take a DP Arts course (pre-test 39%, post-test 58%) compared to those who opted for one of the DP Arts (pre-test 29%, post-test 36%).[205]

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[205] Appendix 14: Interconnectedness – 'knowledgeable'
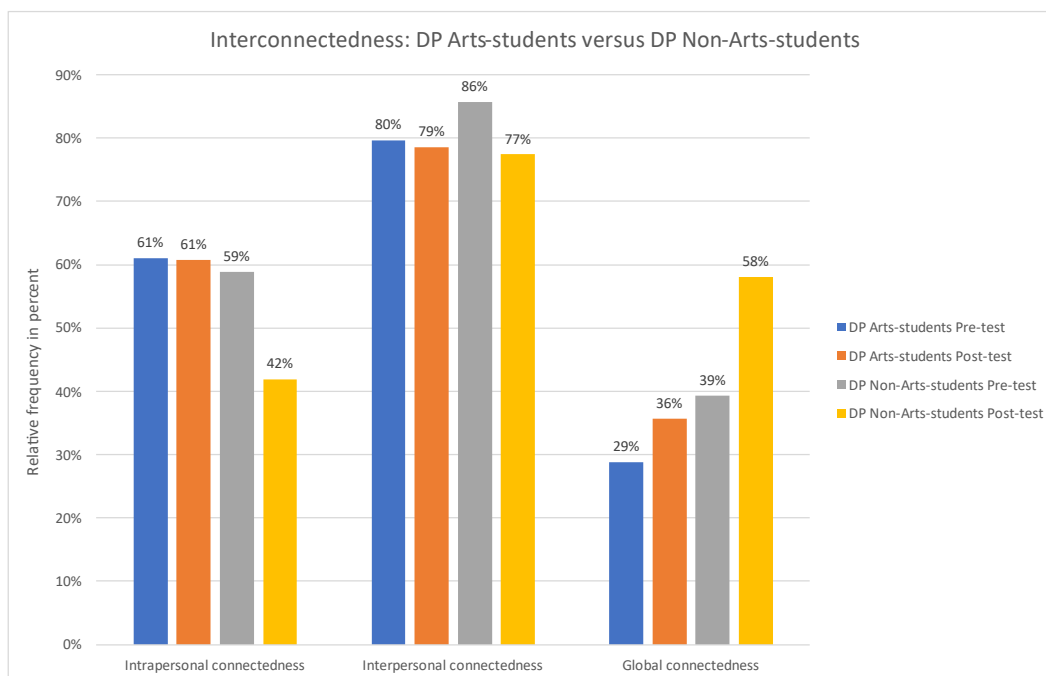
*Figure 69: Interconnectedness for LPA 'knowledgeable'*

## Open-minded

Student responses given for the LPA *open-minded* showed strong evidence of students' intrapersonal connectedness (pre-test 94%, post-test 91%) and interpersonal connectedness (pre-test 87%, post-test 88%). There was less evidence of global connectedness although there was an increasing trend for global connectedness between pre-test (29%) and post-test (43%). In the DP Arts-students group there was a decrease in intrapersonal connectedness between pre-test and post-test (-11%). However, in return this group showed an increase between pre-test and post-test in interpersonal connectedness (+12%) and global connectedness (+ 22%). The DP Non-Arts-students group showed an increasing trend in all three, intrapersonal connectedness (+6%), intrapersonal connectedness (+7%), and global connectedness (+6%).[206]

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[206] Appendix 14: Interconnectedness – 'open-minded'
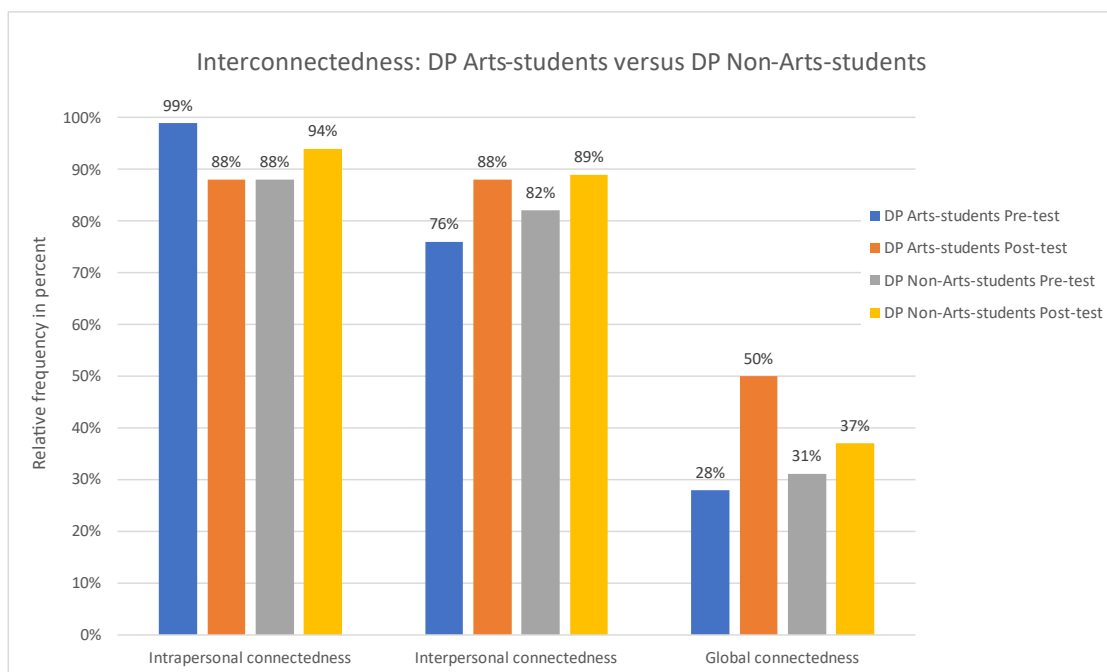
*Figure 70: Interconnectedness for LPA 'open-minded'*

## Communicator (Forms of Communication)

Student responses given for the LPA *communicator* showed predominantly evidence of students' awareness of their intrapersonal connectedness (pre-test 91%, post-test 96%), and furthermore strong evidence of students' awareness of their interpersonal connectedness (pre-test 58%, post-test 55%). Evidence of students' awareness of their global connectedness was increasing between pre-test (19%) and post-test (26%). In the DP Arts-students group there was a minor increase in students' awareness of intrapersonal connectedness between pre-test and post-test (+1%), whereas this group showed a decrease between pre-test and post-test in students' awareness of interpersonal connectedness (-9%) and global connectedness (-6%). The DP Non-Arts-students group showed an increasing trend in intrapersonal connectedness (+8%) and global connectedness (+18%) with no change in interpersonal connectedness (pre-test 50%, post-test 50%).[207]

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[207] Appendix 14: Interconnectedness – 'communicator' (forms of communication)
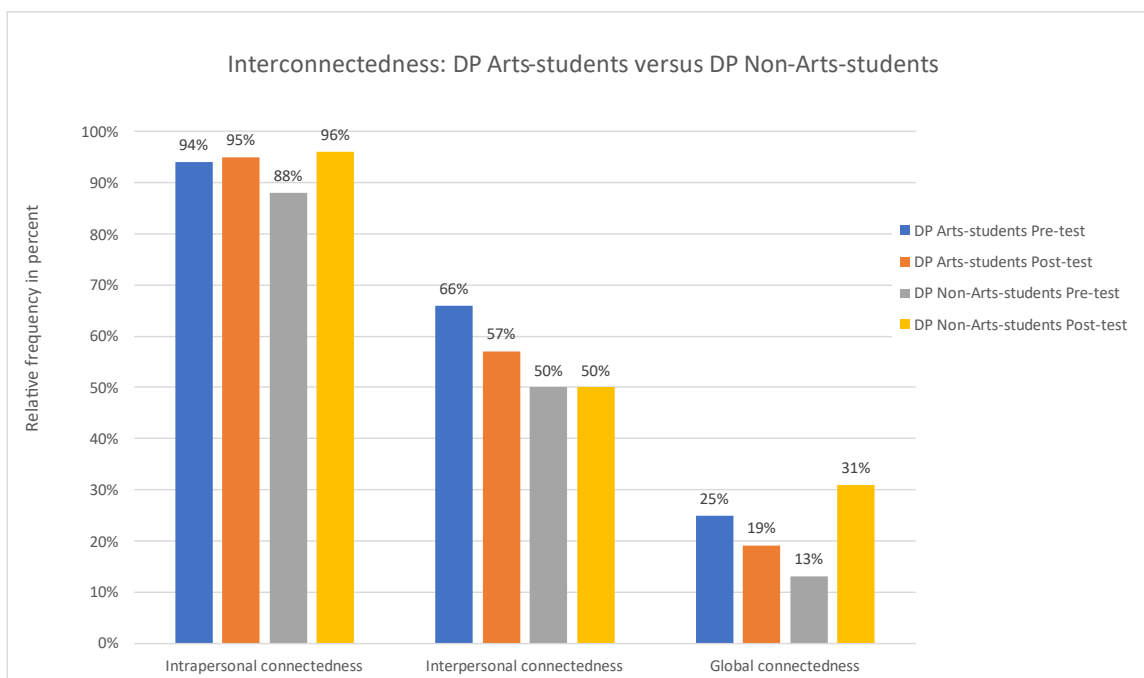
*Figure 71: Interconnectedness for LPA 'communicator'*

## Inquirer, Thinker, Reflective (Critical Thinking)

Student responses given for critical thinking (LPAs *inquirer, thinker* and *reflective*) showed evidence of students' interpersonal connectedness with increasing trends between pre- and post-test (pre-test 66%, post-test 77%). There was also evidence of intrapersonal connectedness although this was less relevant in the post-test (pre-test 66%, post-test 50%). The frequency of examples demonstrating global connectedness was increasing from pre-test (52%) to post-test (61%). In the DP Arts-students group similar trends were observable although the frequency of examples of interpersonal connectedness was higher in this group and increasing (intrapersonal connectedness: pre-test 65%, post-test 50%; interpersonal connectedness: pre-test 77%, post-test 89%; global connectedness: pre-test 54%, post-test 61%). In comparison, DP Non-Arts-students showed similar frequencies in intrapersonal connectedness (pre-test 67%, post-test 50%), but a decrease of frequency in interpersonal connectedness (pre-test 76%, post-test 69%) and a stronger increase from a lower initial frequency in the pre-test (33%) to the post-test (62%) in global connectedness.[208]

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[208] Appendix 14: Interconnectedness – 'inquirer', 'thinker', 'reflective' (critical thinking)
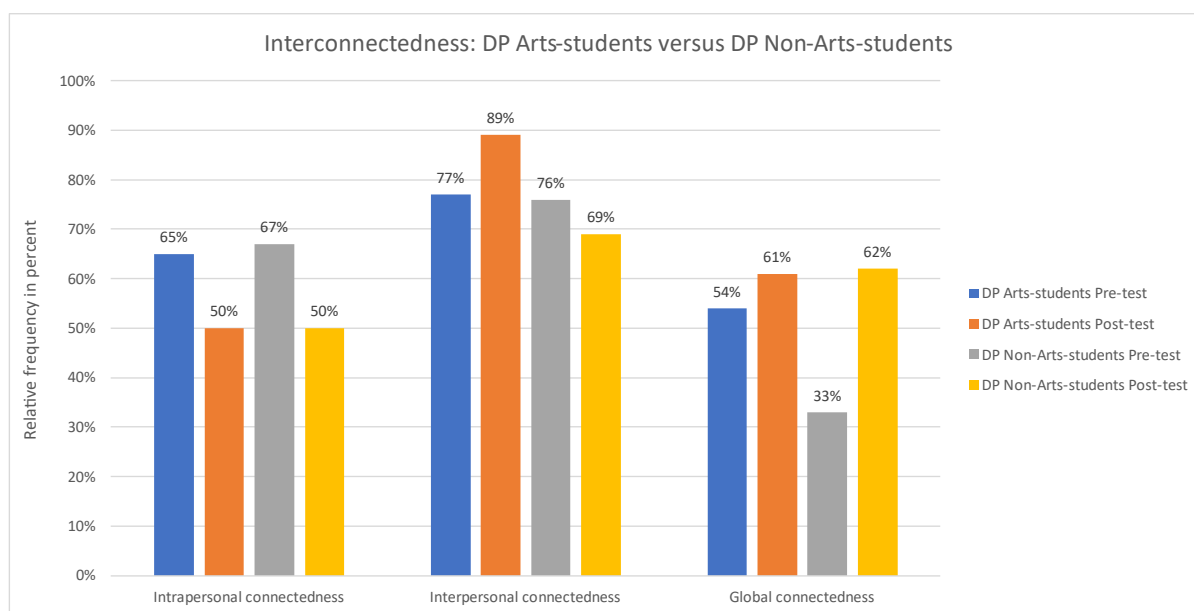
*Figure 72: Interconnectedness for LPAs 'inquirer', 'thinker', 'reflective'*

### Caring and Principled

Student responses given for the LPAs *caring* and *principled* showed particularly strong evidence of students' interpersonal connectedness (pre-test 99%, post-test 94%). Furthermore, although less strong, there was evidence of intrapersonal connectedness in 49% of responses in the pre-test and 51% of responses in the post-test. In contrast to other LPAs, evidence of global connectedness was particularly low in both pre-test (9%) and post-test (11%). In the DP Arts-students group frequencies remained the same between pre- and post-test for intrapersonal connectedness (pre-test 47%, post-test 47%) and interpersonal connectedness (pre-test 100%, post-test 100%). The relative frequency of global connectedness, although still comparatively low, increased from 3% in the pre-test to 11% in the post-test (+8%). In the DP Non-Arts-students group, there was a slight increase of intrapersonal connectedness (pre-test 50%, post-test 54% [+4%]), but a decrease in interpersonal connectedness (pre-test 97%, post-test 89% [-8%]) as well as in global connectedness (pre-test 18%, post-test 11% [-7%]).[209]

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[209] Appendix 14: Interconnectedness – 'caring' and 'principled'
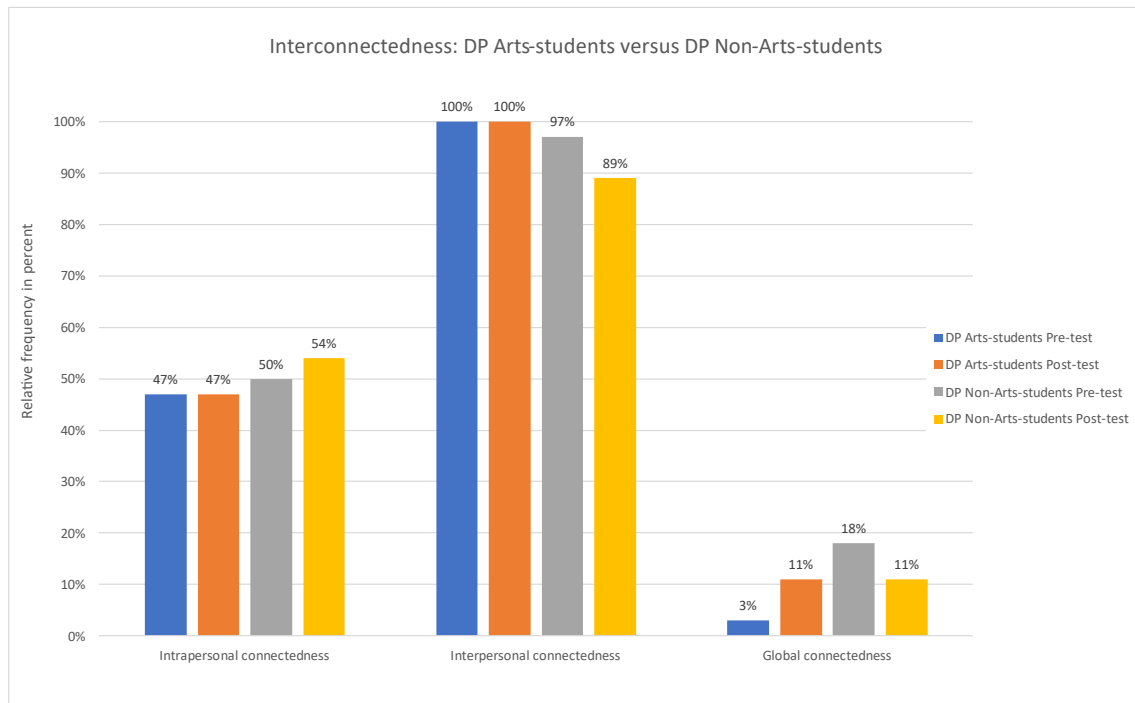
*Figure 73: Interconnectedness for LPAs 'caring' and 'principled'*

## Risk-taker (Willingness to Act)

Student responses given for the question on their willingness to act showed an increase of students' global connectedness between pre-test (49%) and post-test (62%). This increasing trend was similar in both groups, although DP Arts-students showed a greater increase (+17%) compared to DP Non-Arts-students (+7%). Generally speaking, there was strong evidence of interpersonal connectedness in the pre-test in both groups (DP Arts-students: 69%; DP Non-Arts-students: 60%; Total: 64%), but a decline of frequency in the post-test in both groups (DP Arts-students: -38%; DP Non-Arts-students: -10%; Total: -24%). Overall, evidence of students' intrapersonal interconnectedness increased between pre-test (48%) and post-test (56%) (+8%), although this trend was only reflected in the DP Non-Arts-students group (pre-test: 47%, post-test: 65%, [+18%]), while for the DP Arts-students group a slight decline was observable (pre-test 50%, post-test 46%, [-4%]).[210]

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[210] Appendix 14: Interconnectedness – 'risk-taker' (willingness to act)
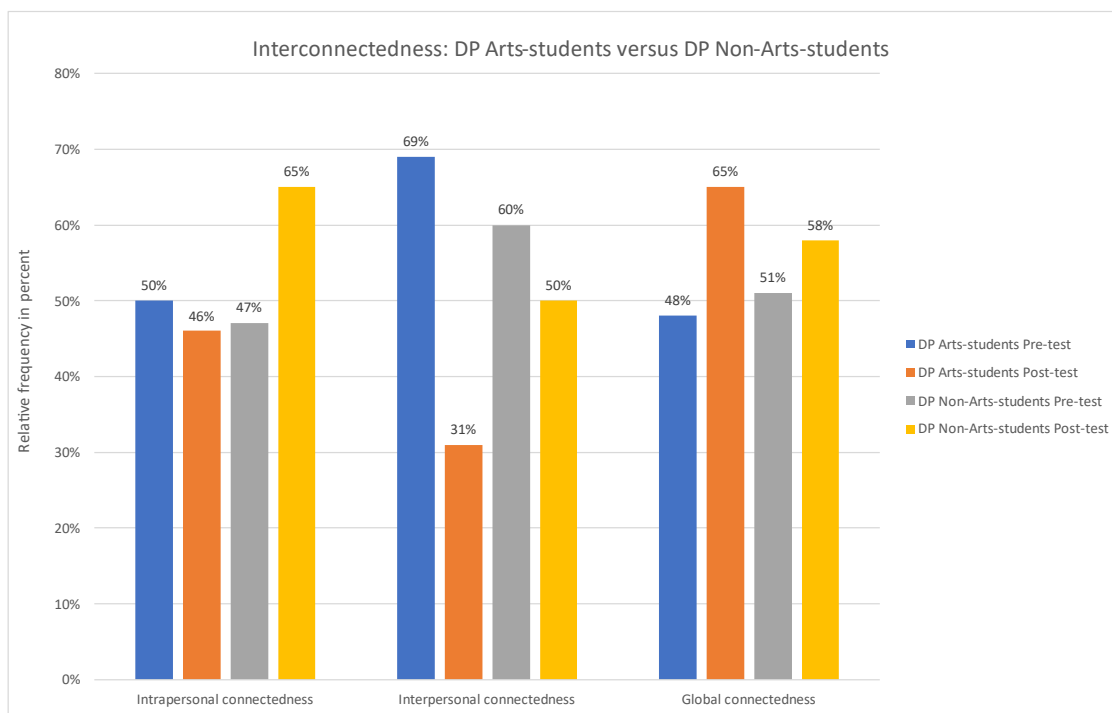
*Figure 74: Interconnectedness for LPA 'risk-taker'*

## Summary

In summary, there were four sets of descriptive findings. The first set relates to the categories which were established based on student responses (see chapter seven). Based on these categories, descriptive analysis was conducted for student responses to all six qualitative questions. With two exceptions (*communicator* and *willingness to act*) there was generally an increasing trend in category 4 and 5 responses, along with a decreasing trend of student responses in categories 1–3 between pre- and post-test. For questions on *communicator* and *willingness to act*, category 4 responses declined, while category 3 and 5 responses increased in the post-test. Findings also identified trends amongst student groups with most notable differences based on school type, gender and students' cultural backgrounds. The second set of findings related to the frequency of themes from each attribute across response categories. With a few exceptions (e.g. K5, P1, P4), the findings based on the frequency of represented themes, showed that students' understanding aligned with the theoretical descriptions for each attribute as identified in IB documentation. In other words, existing themes were identifiably represented across student responses. In addition to the existing themes, additional themes emerged (see chapter six) which were generally well represented in student responses which suggests that there are additional (practical) understandings

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of these attributes for consideration. The implication of this finding will be further discussed in chapter nine.

When looking at how often themes from other LPAs occur in responses to a specific attribute, it becomes clear that generally responses in categories 4 and 5 show a greater representation of such themes. Another interesting observation is that themes from the LPA *balanced* are generally well represented across examples for all attributes, especially theme B2 (*Interconnectedness with others*). The fourth set of findings related to students' awareness of their interconnectedness across pre- and post-tests. Here, it is important to note the frequency with which all types of interconnectedness were represented in student responses. This stands in contrast to the strong representation of theme B2 for the attribute *balanced,* compared to the underrepresentation of themes B1 and B3 across examples. As discussed in chapter three, the attribute *balanced* is conceptually connected to *interconnectedness* suggesting that there should have been a similar representation of themes. The implications of this discrepancy in findings will be considered in the next chapter.

# Chapter 9: Discussion

## Introduction

The following chapter discusses the findings of this research study in relation to the research questions. Section one of this chapter highlights the key findings in the order of the research questions along with preliminary and additional findings which are important to consider in the context of education for IM. The section will also address the hypotheses presented in the methodology. Section two will focus on the contributions of this study to knowledge and practice. Furthermore, the section will explore any academic, methodological, and practical implications of the findings and propose recommendations for the theoretic understanding and practical implementation of IM. The section will also identify the limitations of the study and suggest directions for future research. The concluding remarks will offer a key take-away message to researchers, educators and other stakeholders engaged with the IB – including but not limited to school leadership, students, parents, and others – regarding four areas for consideration that have emerged from the study. The chapter will conclude with a personal reflection on the research process of this study.

## Section 1: Key Findings

In this section, the findings of this study will be discussed. At first, preliminary findings from work that preceded the data analysis to answer the research questions will be introduced. This will be followed by the key findings which will be discussed in the order of the research questions.[211] Finally, additional findings and an examination of the hypotheses based on these findings will be considered.

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[211] Research question 1: Is there a difference in IM in students taking the DP at an early point of the programme versus the endpoint of the programme?
Research question 2: Is there a difference in the development of IM between DP Arts-students and DP Non-Arts-students?
Research question 3: To what extent does students' understanding of the IBLPAs correlate with the IB's definition of these attributes?

**Preliminary Explanations**

*Survey Development*

The survey development was based on the conceptualisation of IM explained in chapter three. The conceptualisation broke the construct of IM down into three dimensions (intercultural understanding, multilingualism, global engagement) with four sub-dimensions (knowledge and understanding, critical thinking, dispositions and identity, attitudes and values, behaviours and actions) which are closely connected to ten characteristics (i.e. the IBLPAs). Scales were selected to identify students' level of IM by measuring characteristics related to the dimensions and sub-dimensions of IM. Through PCA, eight scales emerged which aligned with the conceptualisation of IM for this study (table 41). However, scale six (Critical inquiry, thinking and reflection) had to be removed due to reliability issues, leaving a gap in the measure of *competences and skills* and therefore the overall picture and understanding of students' development of IM as part of this study. An important addition to the measure of sub-dimensions and characteristics of IM is scale three: Personal intercultural confidence and identity. The scale captures students' understanding of themselves within cross-cultural contexts and their confidence to stand up for their beliefs and views and relates to students' intercultural identity, the importance of which in relation to the construct of IM (and related constructs) has frequently emerged in the literature as discussed in chapter three (e.g. Allan, 2011; Byram & Golubeva, 2020; Castro et al., 2015; Deardorff, 2011; Merryfield et al., 2012; OECD, 2018; Savage, 2017; Walker, 2010). However, identity has not yet featured in research on the development of IM (e.g. Demìrcìoğlu & Çakir, 2016; Gándara et al., 2021; Metli, 2018; Parish, 2021). It is furthermore interesting to note, that the Arts have been associated with identity formation as noted in chapter three.

| Scale | Scale title | Dimensions | Sub-dimension | Correlating IB LPA |
|-------|-------------|------------|---------------|--------------------|
| 1 | Perceived intercultural knowledge and knowledgeable behaviour | Intercultural understanding | Knowledge and understanding | Knowledgeable |
| 2 | Ethical intercultural values | Intercultural identity | Attitudes and values | Principled |
| 3 | Personal intercultural confidence and identity | Intercultural identity | Dispositions | [Balanced] |
| 4 | Effective intercultural communication | Multilingualism | Competences and skills | Communicator |
| 5 | Intercultural open-mindedness | Intercultural identity | Dispositions | Open-minded |
| 6 | Critical inquiry, thinking and reflection **(removed)** | Intercultural understanding | Competences and skills | Inquirer, thinker, reflective |
| 7 | Intercultural empathy | Intercultural identity | Attitudes and values | Caring |
| 8 | Global engagement and social responsibility | Global engagement | Behaviours and actions | Risk-taker |

## The Emergence of Categories

During the thematic analysis of responses to open-ended questions it became clear that responses, even when they shared themes from definitions, represented different types of qualities and characteristics. The qualities and characteristics of responses clustered into 5 response patterns or categories, which revealed that student responses represented a spectrum or range. This finding relates to the literature suggesting that the development of IM is a process rather than an end-goal or final outcome (Cushner, 2007; Hacking et al., 2018; Hill, 2007; Mahon & Cushner, 2014; Merryfield, 2008; Poole, 2017). While categories one and two demonstrate a negative engagement in intercultural situations in the form of rejection, prejudice, and self-focussed approaches to or interpretations of cross-cultural interactions and contexts, categories three to five were engaging constructively and with increasing maturity with the characteristics of the LPAs in cross-cultural situations (figure 75). Important to note are the increasing capacities for adaptation at the right end of the spectrum. Such capacities have been noted as an important feature to developing intercultural competences and identities as discussed in chapter three (e.g. Alred & Byram, 2002; Ang et al., 2015; Ang & Van Dyne, 2003; Byram & Golubeva, 2020; Cushner, 2007; Cushner &

Mahon, 2002; Hammer, 2011; Hammer et al., 2003; Leeds-Hurwitz, 2013; Merryfield, 2012; OECD, 2018; Sylvester, 2005; Van Dyne et al., 2015; Williams-Gualandi, 2015).



**Self-focussed and implicit rejection**

- rejection of throughts or actions related to IM
- negatively opinionated

**Rejection and prejudice**

- self-centered response patterns
- subjective/implicit rejection

- passive or functional engagement
- sometimes major misconceptions

**Functional and observational**

**Proactive engagement and interaction**

- pro-active engagement
- contextual awarenes
- minor misconceptions
- occasionally superficial understanding

- transcendental or transformative engagement
- adaptation to/in cross-cultural situations

**Transcendental and transformational**

*Figure 75: Spectrum of categories that were demonstrated in student responses*

However, it is also important to mention that the allocation of a category to an example or response cannot be interpreted merely as a hierarchical measure or level for a specific attribute. Some responses may have been influenced by the circumstances of situations or specific contextual or situational triggers. Nevertheless, the varying degrees of complexity between responses and the varying nature of explanations relating to a response may be indicative of different maturity levels on a spectrum of IM. In this sense, the categories have been used in this research to generate scores, whereby these scores are not associated with grades resembling achievement but rather with markers that are indicative of the response types and their relative position along the spectrum.

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## Research Question 1

> Is there a difference in IM in students taking the DP at an early point of the programme versus the endpoint of the programme?

The response to this research question was generated from both, quantitative and qualitative findings. In summary, quantitative data analysis identified an increase in *intercultural knowledge and understanding* and in *global engagement and social responsibility* and a decrease in *ethical intercultural values* over the course of the DP. Based on the quantitative data, there were no changes in students' *personal intercultural confidence and identity*, *open-mindedness*, or *intercultural empathy*. However, it is interesting to note that in students who had access to an IB education prior to the DP (e.g. as part of the PYP or MYP) there was an increase in open-mindedness which was evident in both, quantitative and qualitative data. Qualitative data further showed that students who attended state/public schools generally demonstrated greater increases in mean scores between pre- and post-tests across LPAs (with the exception to the attributes *caring/principled*). Qualitative data also identified generally decreasing trends in male students (with the exception of the LPA *knowledgeable* and the LPA associated with willingness to act, namely *risk-taker*) which call for greater investigation. The next two subsections will focus on the main findings for all DP students followed by the findings based on individual student groups.

### *Trends for all DP Students*

### Intercultural Knowledge and Knowledgeable Behaviour and Metacognition

As mentioned above, the results of the quantitative analysis show an increase of mean scores between the pre-test (beginning of the DP) and the post-test (end of the DP) for all participants in the scale of *Perceived intercultural knowledge and knowledgeable behaviour*. The scale connects to the dimension *intercultural understanding*, the sub-dimension *knowledge and understanding* and the LPA *knowledgeable.* The increase was significant with moderate effect. Similar trends were evident in the responses to the open-ended question for the attribute *knowledgeable* (qualitative findings). Although a scale for metacognition (critical thinking) in intercultural situations could not be established, qualitative data are available for this sub-dimension of IM and the associated LPAs (*inquirer, thinker, reflective*) which generally demonstrated a slight upward

trend in mean scores in DP students between pre-test and post-test. These findings align with studies that identified increased intercultural understanding or awareness of other cultures (as a sub-dimension of IM) in DP students (e.g. Baker & Kanan, 2005; Demìrcìoğlu & Çakir, 2016; Gándara et al., 2021) and may be explained with the specifically academic focus of the DP (Dickson et al., 2018; Lai et al., 2014; Hayden & Thompson, 2016; Hill, 2010, 2012, 2015; Tarc, 2009, 2018).

## Global Engagement and Social Responsibility

The increase in the scale *Global engagement and social responsibility* in the quantitative data was significant with strong effect. However, this finding was generally not supported by the qualitative data which did not demonstrate an increase in mean scores in DP students overall. Nevertheless, qualitative data did identify increases in some groups of DP students which were offset by decreases in their comparison group which will be explained in the section *Trends based on student groups*. The differences between quantitative and qualitative results may be related to student *perceptions* about their global engagement and social responsibility as reflected in the quantitative survey responses and their *actual* behaviour and proactive engagement with regards to global engagement and social responsibility as identified through student responses in the qualitative section. This type of divergence between *perceived* and *actual* (developmental) state in relation to *intercultural development* has also been noted by Hammer et al. (2003) and is specifically measured by the IDI (Intercultural Development Inventory). The implications of this finding will be discussed in section two of this chapter.

## Ethical Intercultural Values

Unexpectedly, the scale *Ethical intercultural values* showed an overall statistically significant decrease between the pre-test and the post-test in DP students. In this context it is important to note that students who took the DP in November-session schools (Southern hemisphere) did not show the same statistically significant decrease that students showed who took the DP in May-session schools (Northern hemisphere). This outcome raises questions about differences in approaches to and implementation of IM or external factors influencing or affecting the development of ethical intercultural values between Northern hemisphere and Southern hemisphere schools which would constitute an area for investigation for future research. As the

open-ended question combined this attribute associated with ethical intercultural values (i.e. principled) with the attribute associated with intercultural empathy (i.e. caring) it is not possible to identify if a similarly decreasing trend in mean scores was evident for the attribute *principled* in the student responses. However, the underrepresentation of themes [P1] and [P4] and the decline in frequencies of themes [P2] and [P3] for this attribute, which will be discussed in the upcoming section on research question three, suggest that a similar trend might exist within the qualitative data. This finding is interesting in the context of studies which – in discussing ethics and ethical theories in relation to global North and global South – suggest that ethical theories and ethical definitions are assigned based on Western and Euro-centric views (Lacerda et al., 2021; Cooper et al., 2019). These studies suggest a shift in interpretations of what is constituted as ethical thinking and behaviour in the context of cultural differences between the Global North and South. However, data from this study suggests that further to contextual thinking, it may be time to start investigating in the context of an IB education what Northern hemisphere schools have to learn from Southern hemisphere schools in developing intercultural ethical values as part of an education for IM.

## Attitudes and Dispositions

The remaining scales, including the scale for *intercultural empathy*, *intercultural open-mindedness*, *effective intercultural communication* and *personal intercultural confidence and identity*, did not show any statistically significant changes between pre-test and post-test mean scores of DP students. However, in the qualitative data there was a slightly increasing trend in mean scores for the attributes *caring/principled* combined which, in the light of the decrease in the scale *intercultural ethical values* (associated with the IBLPA *principled*) mentioned above, may be attributed to students' intercultural empathy and associated with the LPA *caring*. Furthermore, qualitative data showed minimal increases in DP students' mean scores for the open-ended questions related to the attributes *open-minded* and *communicator*.

## *Trends Based on Student Groups*

## Certificate Students

For the open-ended question on the attribute *knowledgeable,* Certificate candidates demonstrated an increase, but this was less strong than that of Diploma candidates. The same trend was

noticeable in qualitative responses relating to the attributes *caring/principled.* In the qualitative responses for only one LPA, namely the attribute *communicator*, Certificate candidates fared slightly better. Otherwise – unlike Diploma candidates – Certificate candidates demonstrated decreases in the mean scores for open-ended questions relating to critical thinking (*inquirer, thinker, reflective*), *open-mindedness* and willingness to act (*risk-taker*). These differences may be connected to Certificate students taking only a selected number of DP courses rather than courses from six subject groups. Furthermore, Certificate candidates are not obligated to engage with the DP core components (i.e. CAS, TOK, or the EE) which arguably support the benefits of an IBDP education in developing dimensions, sub-dimensions and characteristics associated with IM (Hayden et al., 2020; Hopfenbeck et al., 2020).

## Prior IB Status

In this group, the responses to open-ended questions of students who had participated in a prior IB education either through the PYP or the MYP were compared to those of students who had no access to an IB education prior to taking the DP. With regards to the attribute *knowledgeable*, both groups reached similar mean scores towards the end of the DP even though students with no prior IB education started with a lower mean score at the beginning of the DP. With regards to attributes associated with critical thinking (*inquirer, thinker, reflective*) both groups demonstrated (slightly) increasing trends in mean scores between pre- and post-test. These findings with regards to the cognitive and metacognitive sub-dimensions may be credited to the widely acknowledged academic rigor of the DP (Dickson et al., 2018; Hayden & Thompson, 2016; Hill, 2010, 2012, 2015; Lai et al., 2014; Tarc, 2009, 2018). However, it is interesting to note that for attributes associated with attitudes and values, competences and skills, and behaviours and action, students with no prior IB were not able to demonstrate the same increase throughout the DP. For example, for the attribute *open-mindedness* and *caring/principled* prior IB students demonstrated an increase in mean scores over the course of the DP while students with no prior IB education did not. For the attribute *communicator* and for the attribute associated with willingness to act (*risk-taker*), students with a prior IB education demonstrated an increase, while students with no prior IB education demonstrated a slightly decreasing trend despite starting on initially higher mean scores. In general, these trends suggest that access to prior IB education is a catalyst for the development of IBLPAs associated with IM throughout the DP which is not achieved by the DP alone. These

trends could be an indication for the benefits of a continuous IB education, although findings in a study by Metli (2021) which included two continuum schools did not demonstrate the same positive impact. Therefore, further research is needed to corroborate these trends and to investigate the reasons behind it.

## School Type

In this groups, students who indicated attendance at a private or semi-private school versus students who indicated attendance at a state/public (or equivalent) school were compared. When comparing responses to open-ended questions, generally speaking, students who attended state/public schools demonstrated a greater increase in mean scores between pre- and post-tests compared to students from private schools. Noteworthy with regards to the attribute *knowledgeable* was a much stronger increase of mean scores in students from state/public schools. In the post-test, these students scored similar mean scores as students from private schools despite initially much lower pre-test results. Similarly, greater increasing trends of students from state/public schools compared to students from private schools were shown for the attributes associated with critical thinking (*inquirer, thinker, reflective*) and willingness to act (*risk-taker*) (where private school students even demonstrated a decreasing trend) and for the attributes *open-minded* and *communicator.* However, for the attributes *caring/principled* students from private schools demonstrated greater mean scores both at the beginning and at the end of the DP programme, although the overall increase was similar between both groups. These findings suggest that the impact of the DP on the development of IM is more effective in students from state/public schools than in students who follow the DP in a private school. These findings contradict literature which suggests that 'elite' (i.e. privately funded) international schools are better placed to develop attitudes, dispositions and values associated with IM (Bunnell et al., 2022; Parish, 2021) as well as those that suggest that school type does not impact the development of IM (Baker & Kanan, 2005; Demìrcìoğlu & Çakir, 2016; Metli & Lane, 2020). Instead, the difference in findings may be a reflection of the different pressures that school communities experience depending on their adopted focus (e.g. academic performance) which in turn leads to adoption of traditional performance-driven practices over fostering ideology (Hill, 2012; Lai et al., 2014), or that some schools may be less proactive in fostering ideology due to outward-facing school characteristics that are erroneously perceived as strong enablers of developing IM, such as diverse student

populations (Metli & Lane, 2020; Savva & Stanfield, 2018). Such interpretations would support the views that the development of attitudes, dispositions and values is based on individual school's effort (Metli & Lane, 2020), school ethos and the support and commitment of the entire (IB) school community, including students and teachers, school leadership, parents and the wider community (Gardner-McTaggart, 2021a; Hill, 2007, 2015; Kidson, 2019, 2021; Lai et al., 2014; Metli et al., 2019; Parish, 2021; Tarc, 2018).

## Cultural Background

In this group, mean scores of responses to open-ended questions of students from ethnically homogenous backgrounds (monoethnic or monocultural) and students with bi- or multi-ethnic backgrounds (diverse) were compared. While results were mixed depending on the LPA, generally speaking, students with monocultural backgrounds demonstrated increasing trends of mean scores between pre-test and post-test in more of the open-ended questions. With regards to the attributes *knowledgeable, communicator*, *caring/principled* and the attribute associated with willingness to act (*risk-taker*) students from monocultural backgrounds demonstrated a stronger increase than students from diverse cultural backgrounds who even exhibited a slight decrease in the attributes *caring/principled*. With regards to attributes associated with critical thinking (*inquirer, thinker, reflective*) and the attribute *open-minded*, students from diverse ethnic and cultural backgrounds demonstrated a slight increase as opposed to students from monocultural backgrounds who demonstrated no difference between pre-test and post-test. Such differences have also been noted by participants in a study by Bruckner (2016) who suggested that diverse ethnicities, language learning, family influence, and experiences of intercultural events impact the development of IM (Bruckner, 2016). One of the reasons for differences in (academic) performance, for example, has been accredited to status of integration. In this context, students from non-mixed (or monoethnic and monocultural) backgrounds were better integrated which affected their performance capacities (Rienties et al., 2011). Others have identified differences in achievement in students with mixed ethnicities and associated these with perceptions of mixed identities, namely considering these as either problematic or as beneficial and complimentary (Caballero et al., 2007; Haynes et al., 2006). It is important to note in this context, that the perception of identity played an influential role in achievement and outlook, which has also been noted in the context of the development of IM (Jurasaite-O'Keefe, 2022).

## Gender

When comparing mean scores of open-ended responses in the pre-test and post-test between female students and male students, female students generally demonstrated increases in mean scores, while in contrast male students consistently demonstrated decreasing mean scores between pre-test and post-test. There were only two exceptions to this general trend, namely in the attribute *knowledgeable* in which male students also demonstrated an increase although to a lesser extent and in the attribute associated with willingness to act (*risk-taker*), the only attribute in which male students demonstrated a slight increase while female students did not. However, male students also had a lower pre-test score for willingness to act so that female and male students were at similar mean-scores in the post-test, meaning the increase had compensated for the initial gender-differences in mean scores. Similar gender differences have not only been noticed in studies related to IM (Baker & Kanan, 2005; Demìrcìoğlu & Çakir, 2016; Gándara et al., 2021), but also in research about related concepts (Mahon & Cushner, 2014). Some of these differences, for example in relation to empathy, have been ascribed to socio-cultural conditioning and (stereo-typical) gender roles. However, research has found that sociocultural and contextual influences are not the only indicators for differences in (empathetic) attitudes and behaviour between genders (Christov-Moore et al., 2016; Kågesten et al., 2016). Evolutionary pressures and developmental differences identified in a range of studies (e.g. neuroscience, ethology, economics, etc.) (Christov-Moore et al., 2016) as well as inter-personal relationships, influences of sub-groups including "*ethnicity, race, immigration history and social class*" (Kågesten et al., 2016: 26) have also been suggested to play a role in the observable differences between males and females.

**Research Question 2**

> Is there a difference in the development of IM between DP Arts-students and DP Non-Arts-students?

*Intercultural communication*

The quantitative data findings showed that when comparing the mean scores of pre-test and post-test responses, DP Arts-students and DP Non-Arts-students demonstrated the same response patterns to all scales (as discussed above in the context of quantitative findings for research question one[212]) with one exception: When controlling for pre-test scores, there was a statistically significant difference in the responses to the scale for *Effective intercultural communication* based on DP Arts choice with DP Arts-students scoring higher in the post-test than DP Non-Arts-students. This finding is supported by the literature that argues for the role of the Arts in enhancing cross-cultural communication (Anttila, 2015; Harvey & Bradley, 2021; BMBF, 2012, 2015; Iwai, 2002; Levitin, 2008; Sousa, 2011). In response to the open-ended questions, the results for the attribute *communicator* showed that DP Arts-students started on a slightly higher mean score than their DP Non-Arts peers and demonstrated a similar increase. In contrast, students who engaged with prior Arts or with Arts outside the DP did not demonstrate the increases in mean scores that students demonstrated who did not take Arts prior to or outside the DP. These results may suggest a benefit specifically of DP Arts courses on the development of effective communication skills as opposed to engagement with the Arts in general. However, these qualitative findings would need further investigation in order to be conclusive.

*Intercultural Knowledge and Knowledgeable Behaviour*

In addition to the quantitative finding of a statistically significant increase in mean scores between pre- and post-test on the scale of *perceived intercultural knowledge and knowledgeable behaviour* for all DP students (including DP Arts-students), qualitative responses to the open-ended questions

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[212] In the scales *Perceived intercultural knowledge and knowledgeable behaviour* and *Global engagement and social responsibility* both groups, regardless of DP Arts choice demonstrated an increase. In the scale *Ethical intercultural values* students, regardless of DP Arts choice, showed a decrease in pre- and post-test results. In the remaining scales there was, regardless of DP Arts choice, no statistically significant difference between pre-test and post-test mean scores.

with focus on the attribute *knowledgeable* offered a more nuanced understanding. Here, DP students who engaged with Arts education (regardless of their type of engagement with the Arts, for example DP Arts courses, Arts prior to the DP, Arts outside the DP) demonstrated greater increases in mean scores – even though they started generally on lower initial mean scores in the pre-test – than DP students who did not engage with Arts education (e.g. DP Non-Arts-students, No Prior Arts, No Arts outside the DP). This finding is interesting and important, because the perceived (or hoped-for) benefits of Arts education on academic performance could generally not be empirically supported so far (See & Kokotsaki, 2016). However, in this study the quantitative findings showed that DP Arts students demonstrated a similar development in *intercultural knowledge and understanding* and qualitative findings show that engagement with the Arts (in general) noticeably fosters intercultural knowledge and understanding. These findings discredit perceptions that the Arts are academically inferior or 'soft' options (Elpus, 2019).

*Critical Thinking and Intercultural Open-mindedness*

Similar trends were noticeable in qualitative responses for the attributes associated with critical thinking (*inquirer, thinker, reflective*). Here, students who were engaged in the Arts demonstrated strong increases while students who were not engaged in the Arts demonstrated only minor or no changes. This finding aligns with and supports the literature that suggests that Arts education fosters critical analysis, divergent and innovative thinking, and problem-solving (Boyes & Reid, 2005; Lampert, 2006; O'Farrell, 2014; Pitri, 2013; Roege & Kim, 2013; Winner et al., 2013). Likewise, when looking at the qualitative findings for the attribute *open-minded* mean scores generally increased slightly for all Arts students, while there were only minor or no changes between pre- and post-test for DP Non-Arts-students and decreases in mean scores in students with no prior Arts and no Arts outside DP. Here the positive impact of engagement with the Arts in general on the development of *open-mindedness* as suggested by Iwai (2002) is noticeable. These trends were noticeable in all groups of students engaging in the Arts (i.e. DP Arts, Prior Artsand Arts outside DP) meaning the positive impact is not limited to DP Arts courses. These are encouraging findings with regards to the value and contribution of the Arts in general to the development of intercultural knowledge and understanding, knowledgeable behaviour, critical thinking and open-mindedness.

*Attitudes and Values*

With regards to the LPAs *caring/principled* two scales from the quantitative analysis are relevant, namely the scale for *Intercultural empathy* which demonstrated no change regardless of DP Arts choice, and the scale for *Ethical intercultural values*, which regardless of DP Arts choice, showed a decrease in pre- and post-test results. For the qualitative analysis, these two characteristics of IM were combined into one question, meaning the responses are combined and findings can unfortunately not be conclusively related to either of the two characteristics, but rather have to focus on the sub-dimension of attitudes and values as a whole. For this sub-dimension a slight increase of mean scores for DP Arts-students is evident between pre- and post-tests. However, the overall mean scores of DP Arts-students were lower in both tests compared to those of DP Non-Arts-students and the increase was slightly less strong. Nevertheless, for students engaged in prior Arts or Arts outside the DP, this trend was opposite with students in these groups showing greater increases and slightly higher overall mean scores in the pre- and post-test compared to their Non-Arts peers. These trends suggest that engagement in the Arts in general does have a positive effect on the development of such attitudes and values. Essentially, this finding supports literature which suggests a positive impact of Arts education on the development of interpersonal empathy and social and communal bonding (Groves & Roper, 2015; Hughes, 2011; Laird, 2015; McCarthy et al., 2004, as cited in Huges, 2011; Meiners & Garrett, 2015; Rabinowich et al., 2012; Verducci, 2000). However, this finding is not supported with regards to engagement in DP Arts-courses, meaning that for example design, content or implementation of these courses may be counterproductive in generating the generally positive development of intercultural attitudes and values observable through Arts education. Rather, DP Arts courses (alike other DP courses) may unfortunately be reinforcing negative attitudes and values which may be part of a wider concern arising from this study, namely that the academic focus and drive of the DP may be counterproductive to equally important elements of an IB education, for example the development of internationally minded attitudes, values and dispositions. This is a phenomenon that has certainly been observed and identified as problematic in relation to teaching and learning in the Arts, particularly in music (Abril, 2006, 2009; González Ben, 2021; Holmes and VanAlstine, 2014; Van Alstine and Holmes, 2016).

*Global Engagement and Social Responsibility*

While the findings from the quantitative responses to the scale *Global engagement and social responsibility* demonstrated an increase in both, the DP Arts-students and the DP Non-Arts-students group, this finding is not evidenced as strongly in the qualitative data and the results are more inconclusive with regards to Arts versus Non-Arts student groups than for the other attributes. For example, with regards to DP Arts choice, there was only a minor decrease in DP Arts-students and a slight increase in DP Non-Arts-students. However, both groups showed the same mean scores in the post-test. Prior Arts students showed a slight increase while students who had no prior Arts showed a decreasing trend. However, in students who took Arts outside the DP versus those who did not, this trend was reversed. Here, one possible explanation may include the activity-based nature of being engaged in the Arts, meaning the time investment that young artists make may not leave much room for additional engagements. However, a point can be made to reorient Arts activities and to combine some of the Arts-based engagements of students with service-activities, especially in a school-related context. In this sense, Arts-based engagement could feature through schools' CAS programmes, combining the service and the creativity elements. Furthermore, examples of Eco-arts projects (Sunassee et al., 2021), Community Arts projects (Shields, 2015), or Arts and Media projects (Savva & Telemachou, 2016) may be useful inspirations to demonstrate how the active engagement in the Arts may be channeled towards experiential, contextual and service learning as well as community engagement both within and outside of DP Arts courses.

In response to the research questions, these findings are important in three respects. First, based on the quantitative results, DP Arts-students were improving their intercultural communication skills over the course of the DP in ways that other DP students did not. Second, while in the quantitative data a positive impact of DP Arts courses over other DP courses was mainly noticeable in the sub-dimension of competences and skills (i.e. intercultural communication), DP Arts students also did not perform worse in responses to other scales as might have been expected by the research findings from Elpus (2019), which identified that DP Arts were considered less rigorous and less important. This is further supported by qualitative findings which show positive trends of Arts students' responses across the attributes with the exception of two inconclusive sub-dimensions, namely attitudes and values (i.e. LPAs *caring/principled*) and behaviours and actions

(i.e. willingness to act, LPA *risk-taker*). This finding, as a third point, suggests that the Arts are not always utilised to their full potential within the IBDP. Greater care needs to be taken in a number of areas, for example the status the IB afford their DP Arts courses, the perception of the DP Arts by stakeholders, the design of DP Arts courses, experiential learning opportunities (e.g. in the form of CAS), as well as the implementation and promotion of the Arts at schools' level.

## Research Question 3

> To what extent does students' understanding of the IBLPAs correlate with the IB's definition of these attributes?

In chapter six the themes that had emerged from student data in relation to the definitions of the IBLPAs were presented. The analysis found that the themes identified in IB documentation were – with few exceptions – well represented in students' responses but did not fully capture students' understanding of all attributes. Additional themes were therefore identified in student responses which offered additional insights into students' perception and interpretation of the LPAs. Any of these conceptually relevant additional themes to the definitions of the LPAs provide a more nuanced understanding of possible student interpretations and may be helpful to teachers in the implementation of LPAs into teaching and learning, in discussions with students, and for students in the practical and real-life application of the attributes.

### *Knowledgeable*

The attribute *knowledgeable* contained five themes identified in IB documentation.[213] The examples provided in student responses most frequently represented conceptual and contextual knowledge. Through the given examples, students' awareness of *local and/or global knowledge* [K3] as well as *understanding towards a peaceful world* [K4] were represented, but not as frequently as the more generic themes [K1] and [K2]. A theme that was underrepresented, possibly due to the way the question was phrased, was *understanding towards a sustainable world* [K5]. In summary, students demonstrated a diverse range of conceptual and contextual intercultural

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[213] See appendix 9.

knowledge and responses offered rich data on the types of conceptual and contextual knowledge that students associated with being knowledgeable in intercultural settings. However, students' knowledge of local and global issues and their understanding towards a more peaceful and sustainable world were less frequently represented in the responses, although these have been identified as important aspects of related constructs, such as *global citizenship* (Räsänen, 2007) or *global competences* (OECD, 2018). In these two knowledge areas (i.e. [K4] and [K5]) there is generally room for development in the teaching and learning towards IM as also identified in other studies (e.g. Bruckner, 2016).

For this attribute (knowledgeable), four additional themes were identified through student responses and an important finding was that the additional themes were representative of the practical application and use of knowledge as opposed to theoretical types of knowledge as identified through IB documentation. In the most frequently occurring theme emerging from student data [K8], students gave examples of how they would use knowledge to relate to and connect with others. This was followed by examples of how students shared knowledge with others [K7] and how students used knowledge for purposes of mediation [K9]. Especially theme [K9], but also [K8] are themes that are also represented in frameworks related to other constructs, for example in *global* or *intercultural competences* where they are addressed as effectively relating to others, mediation and conflict management (e.g. Alread & Byram, 2002; Byram and Golubeva, 2020; Fantini et al., 2001; OECD, 2018) and ought to be considered for inclusion in relation to themes associated with the IBLPAs.

Although relevant in specific contexts, theme [K7] examples demonstrate less awareness and understanding of diverse perspectives. However, this is not necessarily equivalent to a lack of concern or care for or about others, as in the example of sharing knowledge to educate those who do not know local condition on how to be safe:

> *"I used my knowledge across cultures when trying to educate people of different cultures on where to swim and how to be safe at the beach."*

At the same time, this example does not demonstrate the interaction that would lead to the perspective-taking that is typical for increasing intercultural understanding. There were also instances, when examples were more self-serving and opinionated, for example:

> *"In some of the classes I had in the past, I shared my cultural knowledge for the benefit of my class including my teachers."*

Nevertheless, this theme did provide nuance towards intercultural awareness in comparison to a theme [K6] which demonstrated students' misconceptions with regards to being knowledgeable in intercultural situations. Here, students understood the demonstration or transmission of knowledge as equivalent to being *knowledgeable* and this was manifested through lecturing others or imposing personal knowledge on others. Often personal knowledge was unrightfully perceived as globally relevant. It was encouraging to see that over the course of the DP, the frequency of both themes [K6] and [K7] decreased across categories.

### Open-minded

For this attribute (*open-minded*) three themes had been identified from IB documentation[214] which were generally well represented and featured across student responses in both pre-test and post-test. One theme (*Willingness to adapt*) [O4] emerged for this attribute which – although not represented quite as often as the first three themes – still bears relevance, both in frequency and conceptually. Theme [O4] also showed an increasing trend throughout categories three to five and was mostly representative of category 5 responses in line with its nature of 'adaptation'. Adaptability is a theme that repeatedly features in literature of related constructs such as *intercultural competence* (e.g. Alred & Byram, 2002; Byram & Golubeva, 2020; Deardorff, 2011; Fantini et al., 2001; Hammer, 2011; Hammer et al., 2003; OECD, 2018), *cultural intelligence* (Ang et al., 2015; Ang & Van Dyne, 2003; Van Dyne et al., 2015) or *intercultural understanding* (Williams-Gualandi, 2015), but also in relation to *cosmopolitanism* (Gunesch, 2007), making it relevant for consideration in the context of IB documentation relating to IM.

### Communicator

Students' understanding of this attribute has been well aligned with IB documentation and all identified themes have been represented. Due to the nature of the question which partially focussed on identifying forms of communication that are used as an alternative to language, theme [C2] (multimodal communication) was particularly well represented showing that multimodal

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[214] See appendix 9.

communication constitutes a valuable means of communication. In this context, an important finding contained the alternative forms of communication identified by students. The most dominant form of communication included different forms of body language (236 times), followed by the use of Arts (50 times). In the examples, the Arts featured as an important medium for expression of more complex topics and for connecting with people in situations of language barriers which are representative for response categories on the right end of the spectrum (i.e. categories four and five).

The meaning and importance of the Arts in cross-cultural communication has emerged from numerous student examples. The following two examples express Arts students' views of the power of the Arts as a form of non-verbal communication:

> "*As a performer, I often find that dancing is an extremely effective and rewarding method of non-verbal communication. The various styles of dance and the way in which you can manipulate your body through space allows for different ideas, stories and concepts to be conveyed.* […]"

> "*Having lived with music my whole life, I use music a lot to express myself when I come across a language barrier. Music to me is more predominant because it shows a lot of emotion and is very universal.* […]"

This finding is supported by discussions on the related construct of *cultural intelligence* (Ang et al., 2015). With regards to non-verbal communication the authors argue that non-verbal expressions are of foremost importance and critical in demonstrating (and observing) cultural intelligence (Ang et al., 2015).


Nevertheless, the equally frequent examples utilising language suggest that even in situation when communication is challenging due to linguistic barriers, language is still considered an important and preferred tool. For some students, this included the use of multiple languages, for others it meant adjusting language to aid communication or using language to describe and explain matters. Only very few students (five mentions) expressly considered language as the only viable way for communication and English as the only medium (monolingualism). More forms of communication that were identified included the use of technology, the use of symbolism and sound (for example for representation purposes) as well as sports and game tactics.

*Critical Thinking*

The themes identified from IB documentation for the LPA *inquirer* featured in student responses and the frequency of themes from the attribute *inquirer* increased towards the post-test. No additional themes were drawn from student responses for this attribute. For the attribute *thinker* two themes from IB documentation were represented in student responses and three additional themes were identified[215]. The most frequently occurring theme was *broad thinking* [T3]. The theme *deep thinking* [T4] did not occur as frequently but was nevertheless evident in a noticeable number of examples and is conceptually relevant. These two themes may constitute valuable additions to the understanding and definition of this attribute. A third theme, namely *power and privilege* [T5] was not very well presented and its frequency declined from pre-test to post-test. The lack of evidence for this theme has also been noticed by Bruckner (2016) and – in the context of the aims of an IB education – this shortcoming may be an important consideration for future research, curriculum design and the implementation of teaching and learning for IM in practice. For the attribute *reflective* two themes were identified in IB documentation of which the theme *consideration of interconnectedness* [R1] was well represented in student responses while the theme *personal development* [R2] appeared only occasionally, which supports the finding regarding a lack of development of intercultural identity which will be discussed further in section two. Instead, conceptually relevant new themes, namely *perspective-taking* [R3] and *flexibility* [R4] emerged, of which particularly theme [R3] was well represented throughout student responses. The frequency of all themes for this attribute increased in the post-test, especially for theme [R3] which is an encouraging trend given that the theme is also considered in related constructs, such as *intercultural/global competences* (e.g. Deardorff, 2011; Hammer, 2011; Hammer et al., 2003; OECD, 2018). Nevertheless, it is advisable to also consider emphasising themes [R3] (*perspective-taking*) and [R4] (*flexibility*) in IB documentation and to strengthen considerations of *personal development* [R2] in the teaching and learning for IM.

*Caring and Principled*

Three themes identified from IB documentation for the attribute *caring* were represented across student responses, although themes [E1] *compassion* and [E3] *impact* were more dominant than

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[215] See appendix 9.

theme [E2] *service.* In this context, it is important to note that examples for themes [E1] and [E3] included momentary and single events such as helping someone out in a moment of need or being considerate in certain circumstances, while example that demonstrated commitment to service [E2] often tended to involve more long-term involvement and a deeper type of engagement with others, for example the sustained involvement in volunteer work or participation in service trips. In this sense, theme [E2] relates more strongly to the dimension *global engagement* and is associated in the wider literature with *global citizenship* (Castro et al., 2015; Merryfield et al., 2012). Themes [E1] and [E3] on the other hand are more connected to attitudes of empathy which also feature in related constructs such as *intercultural empathy* (Zhu, 2011) and *ethnocultural empathy* (Wang et al., 2003) connecting IM through the attribute *caring* to the wider literature.

The themes for the attribute *principled* identified from IB documentation were generally not strongly represented. Especially themes [P1] (*integrity and honesty*) and [P4] (*responsibility*) were underrepresented in student responses while themes [P2] and [P3] – although represented more frequently in student examples – showed a decline in frequency between pre-test and post-test. This may support the quantitative findings with regards to *ethical intercultural values* in which a decline in attitudes was evidenced. However, since the question combined the attributes *caring* and *principled,* it is not possible to confidently establish a connection. Instead, the results could also indicate that students find it easier to identify and share examples that demonstrate caring attitudes and behaviours as opposed to being principled (e.g. ethical behaviours). However, given the general trends within this study with regards to principled (ethical) attitudes and behaviours, there is a likelihood that these trends are connected. Consequently, a greater educational focus needs to be spent to ensure ethical values are developed.

Five themes emerged in relation to the attributes *caring* and *principled* which offered interesting interpretations of the generic themes and possibly helpful additions to how *caring* and *principled* attitudes and behaviours are manifested in practice. For example, the theme [EP5] (*Inclusiveness*) added a practical dimension as it comprised responses that described hospitable and inclusive behaviours. Theme [EP5] was moderately well represented, while theme [EP6] (*Non-judgemental sensitivity*) occurred less frequently but offered a valuable conceptual perspective. Themes [EP7] (*Relating and connecting*) and [EP8] (*Concern and regard*) – for example for others' culture;

choices, principles and habits; and perspectives – introduced notions of interconnectedness and are closely connected to interpersonal understanding of diverse others. As an extension, theme [EP9] (*Vulnerability and identity*) – for example embracing and sharing one's own identity and interacting with maturity – added an interesting dimension to the interpretation and meaning of being *caring* and *principled* in relation to intrapersonal understanding and attitudes, connecting the theme to the notion of identity and demonstrating the importance of intrapersonal understanding and sensitivity in genuine and effective interpersonal interactions (Bruckner, 2016; Hacking et al., 2018; Johnson, 2019; Räsänen, 2007). Initially, themes [EP7] and [EP8] did not occur very often, but their frequency increased in the post-test making them a viable consideration in the context of internationally minded attitudes and values. Conceptually, the additional themes offer interpretations for the attribute *caring* except for theme [EP6] which connects to both attributes, *caring* and *principled.*

### *Risk-taker (Willingness to Act)*

For the LPA *risk-taker* which was identified through students' willingness to act in the light of challenges and difficult situations, the four themes identified from IB documentation[216] were represented throughout student responses. However, it is interesting to note that while themes [A1] (*Courage and determination*) and [A3] (*Resourcefulness and resilience*) were more often represented in the pre-test data, their frequency declined slightly in the post-test which may be an important indicator supporting the concerns regarding the immense workload of the DP (Dickson et al., 2018). In contrast, themes [A2] (*Innovation*) and [A4] (*Problem-solving*) were less frequent in the pre-test, but their frequency increased noticeably in the post-test. This is an encouraging trend suggesting that over the course of the IB – as anticipated based on the aims of the programme – students' ability for problem-solving and innovation in challenging (local and/or global) situations may increase.

Five additional themes for this attribute emerged from student data, which are of interest in terms of their frequency, but also to better understand tendencies in students' willingness to take action on local, global or cross-cultural issues and in identifying their approaches to do so. Frequent

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[216] See appendix 9.

themes which demonstrated a strong increase from pre-test to post-test were [A5] (*Participate*) and [A9] (*Support a cause*). The nature of these themes, although proactive, is generally participatory and/or supportive of existing or new initiatives. What is more, these themes may be evidenced equally in one-time as well as long-term engagements. The noticeable increase in the post-test may be indicative of the impact of the DP, for example through the service component of CAS. A further increase was seen in theme [A8] (*Help and support people*) which shows a direct personal engagement with other people as an important focus of students' service activities, and which connects this LPA with themes in the LPA *caring* (e.g. [E3]). As such, this theme provides a meaningful addition to the understanding and definition of what it means to be engaged and to take action. The frequency of two themes declined from pre-test to post-test, one of which – [A7] (*Reason, de-escalate, mediate*) – decreased only slightly. Interesting to note, however, is the decrease of theme [A6] (*Taking a stand*), a theme that is conceptually related to the LPA *principled* and constitutes a practical manifestation of ethical values and what it means to be *principled*. The decrease in frequency of theme [A6] combined with the low representation of themes [P1] and [P4] and the decrease in frequency of themes [P2] and [P3] for the attribute *principled* seem to support and corroborate the finding of decreasing *ethical intercultural values* identified between the pre- and post-tests of the quantitative analysis.

### Balanced versus Interconnectedness

Through IB documentation, three themes were identified for the attribute *balanced*. The definition, however, is limited to brief descriptions of *life balance and well-bein*g [B1], *interconnectedness with people* [B2] and *interconnectedness with the world* [B3]. In chapter two, the connection of this attribute to the holistic learning theory (Johnson, 2019) was identified. However, especially with regards to theme [B1] the definition of being *balanced* is limited and, if expanded to *intrapersonal connectedness* (Johnson, 2019a, 2019b)*,* encompasses a more concrete approach to achieving (personal) life-balance and well-being. In this context, the qualitative data has been analysed from two angles. One included the identification of themes of the attribute *balanced* in student responses. The other was to separately identify themes associated with interconnectedness (intrapersonal, interpersonal, and global) which – despite the overlap – provided additional nuanced insights into the potential meaning of being *balanced.* The findings showed that while theme [B1] could be rarely assigned to any responses, examples did demonstrate intrapersonal

connectedness. Intrapersonal connectedness was, for example, particularly well represented in examples for the attributes *open-minded* and *communicator* which suggests that these attributes are also imperative in developing and demonstrating students' intrapersonal identity. Interpersonal connectedness was particularly demonstrated in examples for the attributes *caring/principled*, followed by *knowledgeable, open-minded*, and critical thinking (*inquirer, thinker, reflective*). Interpersonal connectedness was also represented – although to a more limited extent – in examples for the attribute *communicator* with over 50%, especially in those provided by DP Arts-students. Furthermore, interpersonal connectedness was evidenced in response to the question about students' willingness to act (*risk-taker*), but this was more evident in the pre-test responses and shifted to intrapersonal and global connectedness in the post-test. Global connectedness was – not surprisingly – particularly evident in the responses to the question on students' willingness to act as this question was associated with the dimension *global engagement*. However, examples also evidenced global connectedness in the LPAs associated with critical thinking (*inquirer, thinker, reflective*), *knowledgeable* and *open-minded*, but more evidently in the post-test. Overall, it is interesting that although the questions focussed on students' interpersonal engagement which naturally led to strong representation of interpersonal connectedness across attributes (also evident in the overrepresentation of theme [B2]), notions of intrapersonal and global connectedness still featured noticeably across attributes, unlike themes [B1] and [B3] of the LPA *balanced*.

*Attributes and Themes across Categories*

When looking at what other attributes (i.e. other than the one relating to the question to which the student gave the response) are represented in the given examples, it becomes clear that generally responses in categories four and five show a greater representation of other attributes and their themes. With regards to specific attributes, an interesting observation is that themes from the LPA *balanced* are particularly well represented across examples for all attributes, especially theme [B2] (*Interconnectedness with others*). This finding contradicts the conclusion by Singh & Qi (2013) that mainly the LPA *open-minded* is connected to the attribute *balanced*, but rather suggests that *balanced* is a theme that – as explained above – is much more embedded across the characteristics and sub-dimensions of IM. Likewise, themes from *caring/principled* and themes from attributes associated with critical thinking (*inquirer, thinker, reflective*) have also been demonstrated in student responses to questions on *knowledgeable* and *open-minded,* while *caring/principled* were

also represented in examples for students' *willingness to act*. This finding suggests that the LPAs *balanced*, *caring/principled* and attributes associated with critical thinking (*inquirer, thinker, reflective*) are foundational, embedded and interconnected across attributes. On the other hand, the attributes *knowledgeable, open-minded, communicator* and *risk-taker*, although generally represented, have not featured as prominently across examples for other attributes, suggesting that these LPAs are potentially more distinct and independent characteristics. In other words, examples to specific attribute questions demonstrate themes from and across all other attributes, but this cross-representation is more distinct for some attributes (i.e. *balanced, caring/principled, critical thinking*) than others (i.e. *knowledgeable, open-minded, communicator* and *risk-taker*).

## Hypotheses

The key findings that emerged do not fully align with either of the hypotheses but demonstrate a more nuanced and complex outcome than either hypothesis anticipated. In general, the findings are more closely in agreement with the alternative hypothesis, albeit with some reservations. In relation to the quantitative data, students indeed developed their IM, but only with regards to the mean scores on two of seven scales, namely the scales *perceived intercultural knowledge and knowledgeable behaviour* and *global engagement and social responsibility*. DP Arts-students demonstrated the same results for these scales as their DP Non-Arts peers. In addition, responses of DP Arts students further evidenced increased mean scores in the post-test for the scale *effective intercultural communication*. Furthermore, in the qualitative data, noticeable differences in the development of dimensions and sub-dimensions of IM were evident across student groups, especially with regards to school type (state/public versus private), gender (female versus male) and cultural background.

In one scale associated with the dimensions and subdimensions of IM, there was an unexpected decrease in mean scores which neither of the two hypotheses predicted. In the three remaining scales (quantitative analysis) there were no differences between pre- and post-test results or between the two groups (DP Arts-students versus DP Non-Arts-students) (null-hypothesis). Based on the qualitative data, students demonstrated generally agreement with the definitions and understanding of concepts and attributes (null-hypothesis), but in addition to the theoretic

definitions and descriptions, a practical understanding of the LPAs emerged with implications to definitions of as well as teaching and learning for IM (alternative hypothesis).

## Section 2: The relevance of key findings in research and practice

The following section focuses on the contributions of this study to knowledge and the impact of the key findings on understanding, research and practice or implementation of IM. Three aspects have emerged from the quantitative and qualitative analyses that affect the understanding of IM, which include the conceptualisation of IM, the practical understanding of themes related to IBLPAs and the identification of response categories into which student responses have clustered. Furthermore, there are three aspects that add to the knowledge and understanding about the development of IM in students throughout the DP programme. These aspects include the divergent development of dimensions and sub-dimensions of IM throughout the DP as opposed to the homogenous development of these dimensions/ subdimensions, the differences in development based on student groups (e.g. gender, school type, prior IB status, etc.), and the impact of engagement in the Arts on the development of IM. In this section, these contributions will be highlighted along with any methodological, academic and/or practical implications and resulting recommendations.

**Understanding and Conceptualisation of International Mindedness**

*Dimensions of International Mindedness*

Identity finds consideration in the literature about IM (Allan, 2011; Bruckner, 2016; Castro et al., 2015; Hacking et al., 2018; Merryfield et al., 2012; Savage, 2017; Singh & Qi, 2013; Walker, 2010) and is also anchored in related construct such as intercultural or global competence (Byram & Golubeva, 2020; Deardorff, 2011; OECD, 2018). However, identity is not included in the conceptualisation of IM and is not further specified in IB documentation. Through the development of a quantitative survey, a scale emerged for *personal intercultural confidence and identity* which directly related to students' intercultural identity. However, intercultural identity is also connected to students' attitudes and values, such as being *caring* and *principled*, and students' dispositions and mindsets, such a being *balanced* and *open-minded*. The results of quantitative and qualitative analysis have demonstrated a lack of development of intercultural identity in IBDP students which is noticeable in the quantitative findings, for example no changes being evidenced

in *personal intercultural confidence*, *intercultural empathy* or *intercultural open-mindedness* and a decrease in *ethical intercultural values* throughout the DP. This suggests that a fundamental aspect of IB core philosophy is missing in the conceptualisation, implementation and outcomes of the IBDP. As a first step, the addition of this aspect into the core conceptualisation of IM to feature intercultural identity more visibly would be recommended in order to bring the importance of the development of students' attitudes, values, dispositions and mind-sets more to the forefront of an IB education (figure 76 below). In this sense, the previously three dimensions of IM would be expanded to four dimensions. With regards to the IB Arts, the addition of the dimension *intercultural identity* would be of profound importance, as the Arts are arguably a place in which identities along with attitudes, values and dispositions are shaped in ways that are unique to this subject group (e.g. Barenboim & Said, 2004; Boyes & Reid, 2005; Buck, 2015; Iwai, 2002; Kou et al., 2020; Laird, 2015; Lampert, 2006; Meiners & Garrett, 2015; Munteanu, 2013; Nielsen & Burridge, 2015; Rabinowitch et al., 2012; Roege & Kim, 2013; Roege and Kim, 2013; Sousa, 2011; Verducci, 2000; etc.).

In support of this recommendation, it is useful to connect the recommended update of the conceptualisation to the qualitative findings discussed earlier in *Attributes and Themes across Categories*, which suggest that while some attributes were generally more cross-connected, one group of four attributes was more independent (i.e. *knowledgeable, open-minded, communicator, risk-taker*). This group of independent LPAs would support a conceptualisation with four independent dimensions of IM, namely intercultural understanding (attribute: *knowledgeable*), intercultural identity (attribute: *open-minded*), multilingualism (attribute: *communicator*), and global engagement (i.e. willingness to act – attribute: *risk-taker*).

In addition, with regards to being an effective communicator (i.e. intercultural communication), a range of multimodal forms of expression were identified in which the Arts featured strongly. Student examples have shown that there is much potential within the area of multimodal forms of communication and expression in cross-cultural interactions. What is more is that only a limited number of students considered the use of language as the only effective tool for communication in intercultural situations. However, the value of multimodal forms of communication and expression, although mentioned in IB documentation, is not well supported. Based on the findings from

quantitative and qualitative data, the understanding of a fundamental dimension of multilingualism should be expanded to include multimodality. An update to the understanding of IM by acknowledging multimodal forms of expression as part of the conceptualisation is an important step towards greater presence of this area of intercultural communication (figure 76). The new conceptualisation of this dimension would offer not only an expanded and more effective approach to multilingualism, but also include cultural forms of communication such as the Arts which would have another profound impact on the practical representation and relevance of the Arts within the IB. These two points are leading to a refined understanding and an updated conceptualisation of IM as follows:



*Figure 76: Updated conceptualisation of IM*

## *Sub-dimensions and Learner Profile Attributes*

The analysis of student responses for themes associated with IB documentation and the identification of new themes have added to the knowledge of how students understand and embody the LPAs, for example with regards to *knowledgeable* behaviours (e.g. theme [K8] *'Relating through knowledge'* and [K9] *'Mediating through/with knowledge'*) and manifestations of being *caring/principled* (e.g. themes [EP5] *'Inclusiveness',* [EP6] *'Non-judgemental sensitivity',* or [EP9]

*'Vulnerability and identity'*). The findings also offer a more nuanced understanding of certain characteristics of IM as identified through the LPAs, for example the ability not just to grow (IB documentation), but also to adapt as part of being *open-minded* (theme [O4] *'Willingness to adapt'*) which has, for example, been associated with enhanced intercultural understanding, intercultural competences, and cultural intelligence in the wider literature (e.g. Ang et al., 2015; Byram & Golubeva, 2020; Hammer, 2011; Hammer et al., 2003; Leeds-Hurwitz, 2013; Merryfield, 2012;OECD, 2018; Williams-Gualandi, 2015). Some of the additional themes may prove useful to the IB community when integrated into IB documentation, especially those that encompass behaviours (e.g. *knowledgeable*, *caring/principled* or ethical behaviours), development (e.g. adaptability), as well as motivation and action (i.e. forms of engagement). In this context, it is interesting to note that findings demonstrated outward and observable behaviours across attributes as well as inward and introspective manifestations (i.e. perceptions) of aspects of IM (figure 77). It is important to stress that based on student examples, observable behaviours demonstrated across attributes and not limited to demonstrations of the IM dimension *global engagement*.



Inward and Introspective Manifestations

(e.g. intrapersonal mind and soul)

Outward and Observable Manifestations

(e.g. behaviours and interpersonal interactions)
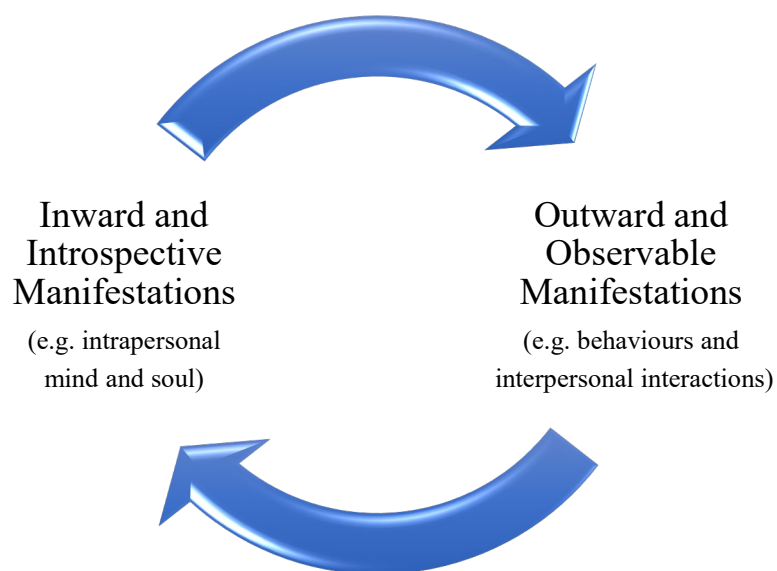
*Figure 77: Inward and outward manifestations of IM*

This finding aligns with the literature on related concepts. For example, Byram & Golubeva (2020) discuss intercultural competence in the context of "*being intercultural*" and "*behaving as an intercultural citizen*" (Byram & Golubeva, 2020: 70) or in other words, observations of

intercultural competence as a state of the mind and manifested behaviours. However, with regards to IM, an overemphasis in the IB of the construct as a state of mind has been criticised (Metli et al., 2019) and in this context it is encouraging to find a discrepancy of IM in theory (i.e. in IB documentation) and practice (i.e. IM as understood and demonstrated by students).

This observation has methodological implications for future research as – in line with recommendations by research literature on how to measure or assess intercultural competences or associated constructs such as IM – it supports a mixed-method approach (Deardorff, 2004). This approach integrates both, the inwards and introspective manifestations, for example through quantitative self-rating surveys, as well as the outward and observable manifestations, through qualitative approaches such as observations, journal entries, or examples-based interviews or questionnaires. From an academic perspective, this finding adds a more concrete understanding of how LPAs may be demonstrated by students (i.e. inward/introspectively and outward/observable). These manifestations offer prompts for future research, for example through investigations of the connection between the two types of manifestations and how these are developed. The two interacting 'sides of the same coin' may also provide an interesting focus or approach for the engagement with IBLPAs, for example by planning conversations and learning activities with the two different sides or manifestations in mind, and engaging students in proactively considering how to develop their inward and outward expressions in concordance. In this context, the interpretation is also important from an Arts-based perspective, as the Arts are a field where the world of introspection effectively meets the world of outward expression and where any potential conflicts between the two worlds can be effectively processed (e.g. Boyes & Reid, 2005; Eisner, 1997, 2002, 2005; Fleming, 2021; Harvey & Bradley, 2021; Iwai, 2002; Laird, 2015; Lampert, 2006; Levitin, 2006; Marsh & Dieckmann, 2017; McVeigh, 2015; O'Farrell, 2014; Phipps, 2019, as cited in Harvey & Bradley, 2021; Roege & Kim, 2013; UN Secretary General, 2017; UNESCO, 2021a). Engagement with the Arts can help students to understand better how to develop in a balanced form both sides of the coin. Student examples for this research have provided multiple demonstrations of how the Arts were used to wrestle with and express inward perceptions, convictions and motivations, and how to balance these with outward forms of expressions and engagement.

At the same time, the research has shown that students who were actively engaged in the Arts through DP Arts courses or outside the DP were not demonstrating the same increase in global engagement as students not engaged in the Arts. Here, Arts teachers must be urged to strengthen this element of critical engagement with the IBLPAs through arts-based engagement and to find ways to proactively encourage engagement in global issues through the Arts. Examples of approaches to global engagement and taking meaningful actions in the context of global issues have been demonstrated through a range of practice-based projects as discussed earlier in this chapter and in chapter three (e.g. Sunassee et al., 2021; Shields, 2015; Savva & Telemachou, 2016). Further to the practical implications, it would be valuable for arts-based research to investigate if and how artistic student work may reflect these two sides of the same coin.

With regards to the identification of themes and an increasing understanding of individual LPAs, the study has added to the theoretic understanding and practical demonstration of the attribute *balanced*. The study has identified an extension to the interpretation of the existing themes for the attribute which allowed for practical demonstration and identification of the related concept of interconnectedness in student responses. The central role, which the attribute *balanced* along with the different forms of interconnectedness played in student examples suggests that an updated definition for the LPA *balanced* may resonate better with teachers and students. It also suggests that specific guidance relating to interconnectedness (i.e. intrapersonal, interpersonal and global connectedness) as part of being *balanced* ought to feature more centrally in curriculum design and implementation and would strengthen demonstrations of IM. As an example, considerations of global connectedness have generally been represented less strongly in student responses except for responses to questions on willingness to act (*risk-taker*) and critical thinking (*inquirer, thinker, reflective*). In this context one is reminded of the lack of some themes in student responses, such as the consideration of power and privilege, which was also identified in other studies (Bruckner et al., 2016; Merryfield et al., 2012). Considerations of global connectedness would be an effective asset for teaching and learning in a range of subject areas and would support the strengthening of students' understanding of local and global issues along with their awareness of power and privilege.

Apart from a more nuanced understanding of LPAs, the findings also added to the understanding of the sub-dimensions of IM, based on key findings regarding *intercultural ethical values* (scale two, quantitative data) in which students demonstrated a decrease in mean values compared to students' *intercultural empathy* (scale six, quantitative data) where students did not demonstrate a change in mean values between pre- and post-tests. In the qualitative section the attributes *caring* and *principled* were covered in the same question. However, the analysis of student responses demonstrated different trends in the themes associated with being *caring* and those associated with being *principled* and it becomes apparent that the two attributes are not well-enough aligned to be combined or used interchangeably. Instead, as demonstrated, for example, in the conceptualisation of IM by Bullock (2011) or the conceptualisation of *global competences* by the OECD (2018), attitudes and values ought to be considered with greater distinction in research, conceptualisation and implementation. This is supported by considerations on the importance on values-based education (Biesta, 2020, 2021) as discussed in chapter two.

Furthermore, while students' attitudes (and their values) are connected to their intercultural identity, an important element that is omitted are students' dispositions. Although closely related to attitudes and semantically aligned, dispositions – together with attitudes – constitute an important part of one's identity, much like two concave sides of a lens (Stokvis, 1953). In connection to the previous point of observation of inward and outward manifestations, dispositions constitute one's positioning (inward and introspective), while attitudes are demonstrated through forms of expressions or behaviours (outward and observable) (Stokvis, 1953). Yet, while these two theoretically differ, practically they are intrinsically linked. Therefore, the addition of 'dispositions' offers additional refinement to the understanding of IM and its dimensions, particularly that of the new dimension of intercultural identity. Likewise, it has become clear that global engagement is not the only dimension for which internationally minded behaviours are representative. Instead, global engagement leads to distinct actions (outward and observable) which are generated through motivations (inward and introspective) which are closely connected to the other sub-dimensions of IM. The updated conceptualisation is demonstrated in figure 78 below.

*Figure 78: Updated conceptualisation of IM including interlinked dimensions and sub-dimensions*

*Categories on a Spectrum of International Mindedness*

A spectrum of five categories has emerged that captured how IM was demonstrated through the student examples given in response to this study. Although categories vary in flexibility, complexity and maturity, they do not constitute a hierarchy or achievement levels. Instead, they offer a spectrum of responses and behaviours which students may knowingly or intuitively adopt as a response to different situations and contexts. According to Hill (2007), IM is developed through a (non-linear) process from cognitive pragmatism (knowledge and skills) to affective idealism (attitudes and values). Hill suggests that over time, the "*cognitive importance of the pedagogy decreases*" while "*the attainment of international education values increases*" and that "*it is at the level of values – at the attitudinal level – that the aims of international education are*

*realized*" (Hill, 2007: 35). However, the research findings relating to categories and LPA themes demonstrate that increasing maturity and response flexibility are achieved across all attributes and sub-dimensions of IM. In other words, the sub-dimensions evolve and nurture each other. For example, the nature of use and demonstration of (outward/observable) knowledge and understanding will change with increasingly complex categories. While knowledge may be demonstrated at face-value in lower categories, the consideration of angles or the use of knowledge for purposes of mediation were represented in higher response categories. Likewise, while set opinions and attitudes may have triggered more rigid response patterns in lower categories, they were more adaptable and relative in higher response categories.

In practice, applying the categories in teaching and learning contexts will help students to become more aware, attuned and capable of response choices, and able to make more informed as opposed to intuitive choices on how to react and respond to intercultural situations and encounters. The use of these categories as an educational tool may also help teachers to guide students in identifying challenges in difficult situations, to offer a conversational tool for discussions, or to aid the planning of lessons and activities that help the development of IM. The categories may also offer an important tool for teachers to enter the dialogue needed in difficult and sensitive situations – which has been identified as a challenge (Lai et al., 2014)– but also as a conversational tool in identifying characteristics in students' responses, for lesson planning or resource development. Here, the different visualisations may be further developed to be used as a tool towards greater understanding. Teachers can also use this to guide students on changing their perspectives on situations and to adapt better to intercultural encounters. Finally, the categories may be used in an informal context to identify students' development of characteristics related to IM over time.

## Development of International Mindedness

### *Diploma Programme*

This study added to the understanding of the development of IM in students. Unlike in the study discussed by Metli (2018, 2021), Metli et al. (2019) and Metli & Lane (2020) who identified no development of IM in students throughout the first year of the IBDP programme based on measurement tools such as the IDI (Hammer et al., 2003) and the GCS (Morais & Ogden, 2011), students in this study actually demonstrated development on two quantitative scales, namely

*intercultural knowledge and knowledgeable behaviour* and *global engagement and social responsibility* (related to the dimension global engagement). DP Arts-students also demonstrated development in the quantitative scale of *effective intercultural communication*. However, the study contradicts outcomes of an overall or homogenous development of IM across dimensions as identified by Gándara et al. (2021) with regards to global mindedness. Instead, this study suggests a more divergent development of the dimensions and sub-dimensions in students in general and based on student groups as discussed earlier in this chapter. Similarly, qualitative findings offer a much more nuanced picture of the development of IM across student groups and IBLPAs, adding to the knowledge and understanding of the development of IM for with regards to diverse student backgrounds, gender, school type or Arts choices.

Furthermore, the findings of the quantitative survey could not be fully corroborated through qualitative findings. For example, the statistically significant increase in the scale *Global engagement and social responsibility* – which may have captured mainly students' attitudes towards global commitment rather than actual actions of global engagement – was not mirrored in a similar increase of mean scores between pre-test and post-test in the qualitative part of the survey. As mentioned above, his type of divergence between *perceived* and *actual (developmental)* state in relation to *intercultural development* has been noted by Hammer et al. (2003). An assessment measure of these two manifestations is further included in the GPI in the form of scales relating to personal development and outward expressions for each dimension (cognitive, interpersonal, and intrapersonal) (Braskamp et al., 2014; Merrill et al., 2012). This finding has methodological implications, namely the review of the quantitative scales (particularly the scale for *Global engagement and social responsibility*) to capture behaviours (in addition to mindsets) more distinctively in line with considerations of being and acting interculturally (Byram and Golubeva, 2020). As highlighted in chapter three, questions from the GCS were available which related to global engagement and were of a more proactive nature (Morais & Ogden, 2011). While these were not included in this version of the survey on grounds of applicability to the student population, these questions could form the basis for a review of the questions for an updated *Global engagement and social responsibility* scale. A further aide to such updates may be the newly identified themes relating to a willingness to act and the identified categories discussed earlier in this chapter.

Larger discussion relating to the divergent development of characteristics and sub-dimensions of IM across diverse student groups are still surprisingly absent in research literature. These findings open up questions for future investigation and research, such as the reasons for the differences in development of IM (or it's [sub-]dimensions) in different student groups. Furthermore, the findings will impact the implementation of IM in diverse IB schools in consideration of different (sub-)dimensions of IM and different student groups. Especially the consistent gender-gap which has also been noted in other studies (Baker & Kanan, 2005; Demìrcìoğlu & Çakir, 2016; Gándara et al., 2021; Mahon & Cushner, 2014), along with the differences between students from state and private schools should feature in considerations around implementation and future research.

In summary, the study adds a more nuanced understanding of the development of IM through the DP. The findings raise questions if this academically rigorous programme does indeed do justice to the ideological aims and mission of an IB education, or if it continues to respond to and reinforce academic aims along with economic interests (Bunnell et al., 2022; Hill, 2010; Parish, 2021; Renaud, 1974; Tarc, 2009, 2019). Regardless of the reasons, the impact of the programme as shown in the findings of this study is that students are not developing equally in the different dimensions of IM. While the development of intercultural knowledge and understanding along with knowledgeable behaviour is a strength, especially the development of students' intercultural identity (attitudes and values, dispositions and mindsets) but also the consequently following actions to make a difference towards a more sustainable and more peaceful world demand much greater attention in the future. Through an update and refocus of the DP in the DP review, which is currently in progress, new avenues for the DP should be envisioned that put a greater emphasis on the development of students' intercultural identity. Such a refocus should also be evidenced in an update to the character of the DP, whereby academic achievement and rigour may be honoured but should certainly be expanded towards a focus on intercultural identity which results in appropriate motivation and engagement with local and global issues. This new thinking ought to be in line with research and theory suggesting that the focus of education – particularly international education – in the 21st century must include a focus on the development of ethical values and prosocial attitudes (Biesta, 2020, 2021) as opposed to elitism and the economic advantage of a select few (Bunnell et al., 2022; Castro et al., 2015; Gardner-McTaggart, 2021a).

Finally, the study adds empirical evidence to the contributions of DP Arts-courses on the development of (sub-)dimensions of IM. Here, the strengths of the DP Arts courses in developing effective intercultural communication skills as identified in the quantitative survey is noteworthy and should be embraced. Likewise, the findings that DP Arts students demonstrated the same increasing mean scores between pre- and post-tests for *perceived intercultural knowledge and knowledgeable behaviour* as their DP Non-Arts peers and the strong increasing trends for all DP Arts-students in the qualitative data with regards to being *knowledgeable* is important in the context of student, parent and educator perceptions that DP Arts are less rigorous and less important subject options (Elpus, 2019). Furthermore, an increase of mean scores between pre- and post-tests on the scale of *global engagement and social responsibility* is interesting to observe although this increase is not equally replicated in the qualitative data. One feasible consideration for this may be that the time investment which active engagement in the Arts demands of students, for example through additional practice, rehearsals, performances and artmaking activities, in addition to the heavy workload of the DP adds constraints to students' capacities for further proactive engagements. With regards to practical implementation, considerations should include ways to combine performance and artmaking activities with communal action (discussed earlier) as demonstrated for example through the new directions in the field of eco-art (Sunassee et al., 2021). Here, schools and teachers should actively encourage local and global engagement through artmaking which stands in contrast to some of the 19th century performance practices which are commonplace in many Arts programmes (Tolmie, 2020).

However, the study also raises questions regarding the current limitations of a DP Arts educations in the light of its potential as identified in chapter 3. The Arts are considered to contribute to the development of specific competences, attitudes and values which are also associated with international competences and intercultural understanding (Fleming, 2021; Garfias, 2004; Harvey & Bradley, 2021; McVeigh, 2015). However, to achieve the positive benefits associated with the Arts, the curriculum and course design and the purposeful approaches to teaching and learning in the Arts classroom are essential (Eisner, 1997, 2005; Roege & Kim, 2013). In the Arts (as in all subject areas) thoughtfully designed programmes and courses, well-trained and skilled educators (Iwai, 2002) and a meaningful pedagogy are essential to utilise any benefits of Arts education

outlined in chapter 3 (Abril, 2006; Iwai, 2002; Roege & Kim, 2013) and to appropriately address some of the real-life challenges of a 21st century education (Tolmie, 2020). This includes young artists who develop as personalities with a positive self-image who care about themselves and about others and the environment (Anttila, 2015; Boyes & Reid, 2005; Iwai, 2002; Kou et al., 2020; Meiners & Garrett, 2015; Nielsen & Burridge, 2015; Roege & Kim, 2013; Sousa, 2011; Sunassee et al., 2021). They are able to de-centre their own perspectives and opinions and consider the views and perspectives of diverse others (Fleming, 2021; Harvey & Bradley, 2021; Iwai, 2002; Kou et al., 2020; Laird, 2015; Lampert, 2006). With regards to improvement of ethical intercultural values, Verducci (2000) stipulates that in theatre and drama education, moral education through method techniques needs to be supplemented with moral content and reasoning. This suggests that an expansion of the focus on ethical and moral content, discussions and reasoning are fundamental in curriculum design and course implementation in order to reverse the negative trend of development of ethical intercultural values throughout the DP.

Furthermore, while the Arts offer a fertile ground for the development of students' intercultural identity (Boyes & Reid, 2005; Iwai, 2002; Marsh and Diekmann, 2016, 2017; Meiners & Garrett, 2015; Nielsen & Burridge, 2015; Roege & Kim, 2013; Rowe, 2015; Sousa, 2011), the Arts are underutilised in the IB in two respects: one is the value that is placed on the Arts through its optionality in the DP, the other is through the actual nature and content of DP Arts-curricula. Criticisms on the latter are concerned with the mainly Western approaches to Arts education in diverse cultural contexts (Elpus, 2019; Fleming, 2021; González Ben, 2021; Koff, 2015) or an overgeneralised 'one-size-fits-all' Arts-approach to different disciplines (here specifically in dance) (Koff, 2015). Some approaches, for example those of teaching *world music*, potentially lead to reinforcement of difference and 'Western supremacy' (Hess, 2010), while others' observed and cautioned against the potential reinforcement of stereotyping in relation to various Arts curricula and Arts activities (González Ben, 2021; O'Farrell, 2015; Fleming, 2021; Pavis, 1996, as cited in Castro, 2016).

In this sense, accessing diverse cultural Art forms in view of their inherent practices and traditions (Green, n.d.) needs to be approached with sensitive consideration of how our own reference and value frameworks skew the view and understanding of such Art forms and cultures (Blair & Kondo,

2008; Fock, 1997). In this context it is important to engage with Arts from diverse cultures through deep engagement with their context (Abril, 2006, 2009; Fleming, 2021; Holmes & VanAlstine, 2014; VanAlstine & Holmes, 2016), through experiential and relational learning (as opposed to listening and appreciation) (González Ben, 2021). Traditional approaches featuring music appreciation of music from diverse contexts through listening and conceptual learning, as is the case for the course (IB, 2014c) that DP Music students who participated in this study took, have been identified as ineffective and possibly counterproductive in developing intercultural understanding, appreciation of diverse musical styles and cultures, and intercultural attitudes (Abril, 2006, 2009; González Ben, 2021). Instead, approaches that feature practical engagement and socio-cultural dialogue around contexts and ethnicity to allow for experiential learning along with a deeper contextual engagement have shown to be more effective in developing positive attitudes towards the music of diverse cultures (Abril, 2006, 2009; González Ben, 2021; Holmes & VanAlstine, 2014; VanAlstine & Holmes, 2016). Furthermore, it is important to note with a focus on the development of intercultural identities and intercultural understanding, that the contexts and ethnicity of students themselves need to be acknowledged and catered for in the approaches to teaching and learning, and course content (e.g. in the choice of works) (Abril, 2006, 2009) which has been a key focus in the development of the recently launched DP Music course (IB, 2020).

## Limitations of the Study

The study was initially anticipated for the research comparing the development of IM in DP music students versus those who did not opt for a DP Arts course. However, there were not enough DP music students who responded to both, the pre-test and the post-test. Therefore, the comparison has been expanded to DP Arts-students versus DP Non-Arts-students. Within the DP Arts courses, however, there are differences which may have affected the development of IM in DP Arts-students. A larger scale study with greater response numbers would be better suited to differentiate between individual DP Arts courses to identify any potential differences. Further to this, the researcher had no insight into the implementation of different courses or teachers' and leadership attitudes towards IM within the participating schools, which have been found to impact the development of IM in students (Hacking et al., 2018; Gardner-McTaggart, 2021a; Hill, 2007; Kidson, 2019, 2021; Lai et al., 2014; Metli et al., 2019; Metli & Lane, 2020; Parish, 2021; Skelton,

2007; Tarc, 2018). This gap is related to the design of the study combined with practical limitations such a time constraints and lack of funding. Classroom observations and analysis of course documentation along with teacher and leadership attitudes may offer additionally rich and nuanced details to the understanding of how IM is developed through DP Arts courses, by different educators and their teaching and learning strategies, and in diverse schools. This limitation was offset, however, by the possibility to reach a greater diversity of schools and students, including from Northern and Southern hemispheres and all three IB regions, through the digital nature of the survey and the semi-flexible approach to the data collection.

The sampling for this study was not fully random. Only schools offering DP Arts courses (according to Elpus [2019] only around 75% of all IB schools offering the DP) and specifically those offering DP Music were included, limiting the opportunity of participation to those schools with this specific course choice. This may potentially have impacted or could be considered predictive of some of the attitudes within the school community. Furthermore, students could only be reached once the school and specific teachers had demonstrated an interest in the study. The interest to participate may have been influenced, for example, by timing in the school year, size of the school and cohort, workload of DP coordinators or teachers, etc. In addition, the survey was only offered in English and Spanish meaning that non-native English or Spanish speakers would have taken the survey in a non-native language. The diverse linguistic, cultural, ethnic and socio-economic backgrounds of respondents may have impacted the understanding or interpretation of some survey questions in an unexpected manner, as explained by Marsh (1979): "*The danger comes in using words whose ambiguity is unintended and unknown: the meaning of the question to different respondents is varying according to contextual factors that we may be unaware of*" (Marsh, 1979: 303). Such unexpected ambiguities may be an aspect of interest for future studies with a focus on the refinement of this survey for IM. Also, studies with sufficient resources and funding may deploy the survey in a greater number of translations to cater to respondents from diverse linguistic backgrounds.

With regards to the qualitative part of the survey, one open-ended question combined the LPAs of *caring* and *principled*, as they conceptually belonged to the group *attitudes and values* identified through the literature (see chapter three). However, greater refinement is necessary with regards

to investigating these two characteristics. The quantitative data suggest that there is a decrease in ethical intercultural value (*principled*) and no change in intercultural empathy (*caring*) and these findings seem to be similar in qualitative data when looking at the frequency of themes. However, it is not possible to fully identify trends based on these two individual attributes because of the integrated nature of the collected data. The segregation of these two attributes in future research and conceptualisations is an important consideration based on the findings of this study.

## Future Research

In the context of this study, recommendations for future research include the improvement of the quantitative survey tool. This study provides a basis for approaching the measurement of the dimensions based on existing surveys, but it was not possible to consolidate the scales for the measurement of the metacognitive sub-dimension, meaning a scale for critical thinking is currently missing which would be an important addition to any future assessment tool. In addition, the wording of the original scales was retained as much as possible. However, some wording and content may be questioned in the context of the IBDP student population and could be an area for development in future research. As an example, the interpretation of what it means to 'enjoy' in statements such as "*I enjoy living in cultures that are unfamiliar to me*" (Van Dyne et al., 2015: 20) (Scale: Intercultural open-mindedness) may vary depending on the linguistic, cultural, ethnic and socio-economic background of respondents. Other considerations which could be debated may include if 'enjoyment' would be an indicator of or in fact a necessity for being open-minded. Likewise, statements such as "*I know several ways in which I can make a difference on some of the world's most worrisome problems*" (Morais & Ogden, 2011: 9) (Scale: Global engagement and social responsibility) could be subject to interpretation or may even pick up a lack of realism in respondents or a misguided understanding or interpretation of expectations. In this context, the themes identified from student responses may be a helpful guide in the refinement of wording as well as in identifying items that may need to be added to further consolidate the scales in the IMS.

Future studies may also aim to investigate, scrutinize, consolidate or expand further the categories which have emerged from this studies' qualitative data. It would, for example, be interesting to investigate further the applicability of these categories to diverse student populations or to identify if contextual nuances call for adaptations or expansion of these categories. As these categories

offer an addition to knowledge about IM in practice, it would also be interesting to identify – through practice-based studies – how to practically utilise the categories as part of the implementation of IM into teaching and learning. In addition, future studies may look to identify the reasons for the differences in the development of characteristics and sub-dimensions related to IM in different student groups, for example gender differences, school type (state/public schools and private schools), cultural background, or hemisphere (e.g. impact of attendance of IB schools in Southern and Northern hemisphere on the development of *ethical intercultural values*).

Another important area of further research is on curriculum and assessment design to foster IM more effectively through Arts education. While the Arts have the potential to positively impact the development of IM, this impact may be hampered by curricula and pedagogies that are strongly rooted in Western practices and traditions. A continued critical engagement with the practices of Arts education is necessary and further studies are needed to guide curriculum and assessment designers into opportunities and options for more effective Arts education practices to answer the manifold demands of the 21$^{st}$ century. Furthermore, the impact of student workload in the DP and the academic demands of the programme on the development and demonstration of different LPAs, such as the willingness (and ability) to act and get engaged in prosocial and environmental issues, would be an interesting area for investigation. The study has shown a decline of themes, such as *courage and determination* and *resourcefulness and resilience* between the pre-test and the post-test and it would be helpful to identify reasons for such trends in order to determine directions for programme design and development. One more area of interest for research, which this study was not able to address more deeply include the understanding of intrapersonal, interpersonal and global connectedness and how these areas are connected to and anchored within dimensions, sub-dimensions and characteristics associated with IM (and cross-cultural competences) expressed through the IBLPAs.

## Concluding Remarks

From the literature review in chapters two and three, several conceptual aspects stood out, which included the importance of:

- IM as a developmental process rather than an endpoint,
- the ability to adapt, and
- the awareness of interconnectedness.

The first point on the importance of acknowledging process has been supported by findings in the qualitative part of the study. Responses 'clustered' into five categories that were ranging across a spectrum of manifestations demonstrating various levels of complexity and maturity. The spectrum is reflective of a non-linear process under consideration of contextual and situational influences. The ability to adapt has emerged as an additional theme for the LPA *open-minded* indicating that even though conceptually this aspect is not anchored in IB documentation, it is represented in the practical understanding and demonstration of IM by students and ought to be included in the LPAs definition. The ability and willingness to adapt has also been represented in the category of *transcendental and transformational* manifestations or examples at the right end of the spectrum (figure 75). Furthermore, student responses have demonstrated awareness of their interconnectedness, a concept that is anchored in IB's definition for the LPA *balanced* (IB, 2019a). However, qualitative data have shown that IB's definition is too limited to capture the full complexity of this concept. In summary, important aspects that have emerged from the literature are reflected in the data and findings of this study, and consequently IB documentation ought to also reflect this connection.

In addition to these conceptual aspects, four specific issues for consideration have emerged from the key findings of this study. The first issue is the decreasing trend of students' *ethical intercultural values* in the quantitative and qualitative parts of the study paired with no apparent development of students' attitudes, values, dispositions and mind-sets (i.e. intercultural identity) in the quantitative survey. This finding resonates with some of the criticisms of the IB in the context of the organisation's commitment to humanitarian causes, but failure to take a stand with regards to political, social, economic or other sensitive but pressing global issues (Bunnell et al., 2022; Castro et al., 2015; Gardner-McTaggart, 2021a) due to its neutral and diplomatic role (Tarc, 2009) or due to its elitist outlook (Bunnell et al., 2022; Gardner-McTaggart, 2021a). While for the

organisation this stand may be inherent and needed, the backwash into education (Walker, 2018), however, would be a regrettable omission in the light of the IBs commitment to an education for a more peaceful and just world (IB, 2022a) which calls for urgent attention and consideration. A first step would be to bring the dimension of intercultural identity to the forefront of the conceptualisation for IM, to strengthen the development of intercultural identity through the DP (i.e. in programme and curriculum design) and to encourage and support the practical implementation of this element of an IB education.

The second area for concern is the gender-related results that emerged from the qualitative questions of this study which is in line with other research studies who have identified similar differences (Baker & Kanan, 2005; Demìrcìoğlu & Çakir, 2016; Gándara et al., 2021; Mahon & Cushner, 2014). Male students were demonstrating decreasing trends in the IBLPAs *open-minded, communicator, caring* and *principled*, and in the attributes related to critical thinking (*inquirer, thinker, reflective*). An increasing trend was only evident in the attributes *knowledgeable* (although less strong compared to female students) and *risk-taker* (willingness to act). Critical questions regarding these trends especially in the domain of intercultural identity including sub-dimensions of attitudes, values and dispositions, but also for behaviours and actions are important to close the gender gap.

A third point for consideration includes the mismatch between quantitative and qualitative findings with regards to *global engagement and social responsibility*. Here, the increase in mean scores in relation to willingness to act (i.e. *global engagement and social responsibility*) identified in the quantitative data was generally not replicated in the qualitative responses to open-ended questions where DP students overall did not demonstrate such an increasing trend. Essentially, while some groups evidenced increasing global engagement, this was offset by comparison groups who exhibited a reverse trend. In the context of the criticisms in the literature that service learning is generally outsourced into the community (Belal, 2017; Castro et al., 2015; Metli et al., 2019) and the lack of engagement with global matters of social justice and power imbalances (Castro et al., 2015; Merryfield et al., 2012) this finding is important to address in two ways. In theory, the IB should critically consider how its diplomatic and neutral stance may affect important educational outcomes. In practice, schools' approaches to global engagement and service learning but also

approaches to content and critical discussions may need to be revisited. Further research into the tendencies of the various student groups with regards to their willingness to get involved, but also into curriculum and programme design interventions to tackle some of the negative trends and to strengthen this important pillar of IM would be beneficial for the development of IM across the various IBDP student groups.

The final point is that the concerns and views that consider the Arts as less rigorous and less relevant in an academically driven programme (Elpus, 2019) do not hold true. Students who took the DP Arts demonstrated equal outcomes in the dimensions associated with IM in the quantitative analysis but did better in the sub-dimension of intercultural communication. The qualitative analysis further showed that DP Arts-students demonstrated increasing trends in all characteristics associated with IM, except for limitations regarding their willingness to act. In other words, students certainly achieved equally well academically in developing intercultural knowledge and understanding, and according to the qualitative data demonstrated noticeably increasing trends in the development of critical thinking skills. A reconsideration of the status of the Arts as 'soft options' is timely and further empirical studies to support the findings would be helpful in changing the status of the Arts within an IB education. At the same time, it is of utmost importance for Arts educators and curriculum and assessment designers to embrace their responsibility in developing fundamental aspects and elements of an international education, including the attitudes, dispositions, and values of students associated with the formation and development of intercultural identity, intercultural understanding, multicultural and multimodal communication, and global engagement. Arts education in the 21st century must step away from 19th century conservatory practices (Tolmie, 2020) and perceived elitist artistry (Elpus, 2019), and re-envision its purposes, aims and strengths. This reorientation must become evident in the content and foci of curricula and courses offered by the IB, the implementation and teaching practices deployed by teachers, and attitudes, dispositions and values that students develop through an IB Arts education. In other words, Arts education must be relevant to the manifold demands of the 21st century. Only in this way will the potential of the Arts to carry their fundamental role in the formation of students' intercultural identities, understanding, competences and engagement gain momentum and encourage stakeholders, including policy makers, school leadership and parents, to afford the Arts their rightful place as part of a 21st century IE.

**Personal Reflection**

This study has comprised two areas of passion and concern for me, one being the Arts as a fundamental element of life, development and education, and the other one being the nature of cross-cultural interactions and competences. Having worked in the field of music for many years, I have witnessed the powerful connections and forms of cross-cultural communication that may be evidenced through engagement with music, which lead to a curiosity about the underlying processes and empirical evidence for such observations. The critical engagement with the Arts allowed me to step out of the zone of passion towards a deeper analysis of how any benefits of the Arts may be identified and evidenced, and how Arts education can be enhanced and shared more effectively. The passion for cross-cultural interactions and competences has led me to work at first practically in the field in IE, followed by working for the IB. The daily engagement with teaching and learning in cross-cultural contexts, in curriculum design for IE, and the passion for the IB's mission to create a better and more peaceful world raises continuous questions about the impact of our work on students' development and of the value of IE in general. Through this study I was able to engage more deeply with the evolving field of cross-cultural competences, IM and IE.

Throughout the research process, I had the privilege to connect with IB educators and (indirectly) with students, which allowed me to gain insights into their thinking about and engagement within these two fields. It has been an encouraging experience to see the interest and support from the IB community regarding research on IM, which may be a reflection of the commitment to this complex and multifaceted construct despite the many challenges associated with IM as expressed in chapter three. Another important aspect of learning included the work related to research design, data collection and data analysis. It has been a challenging yet rewarding journey and I cherish the opportunity to learn about the research process and to improve my knowledge and skills relating to the different stages of this process. Finally, the engagement with research philosophies has been an important part of this ongoing journey as a researcher, which has helped me to further consolidate my beliefs and commitments to knowledge construction and the ways to view and understand the world. I believe that this study has affected me in many ways and as a result I was able to become not just a more informed researcher, but also a better curriculum and assessment designer, and a more conscientious educator and musician. In this sense, I would like to end with

a quote that expresses eloquently my perceptions of the journey through a cross-cultural life which has been equally reflected in the journey of this study:

> *"Thoughtful travellers do it to have enlightening experiences, to meet inspirational people, to be stimulated, to learn, and to grow. Travel has taught me the fun in having my cultural furniture rearranged and my ethnocentric self-assuredness walloped. It has humbled me, enriched my life, and tuned me in to a rapidly changing world."* (Stevens, 2018: vii)

# Appendices

## Appendix 1: IB Learner Profile

*Table 42: IB learner profile cited from "What is an IB education?" (IB, 2019a: 3-4)*

| Attribute | Descriptor |
|---|---|
| Inquirers | We nurture our curiosity, developing skills for inquiry and research. We know how to learn independently and with others. We learn with enthusiasm and sustain our love of learning throughout life. |
| Knowledgeable | We develop and use conceptual understanding, exploring knowledge across a range of disciplines. We engage with issues and ideas that have local and global significance. |
| Thinkers | We use critical and creative thinking skills to analyse and take responsible action on complex problems. We exercise initiative in making reasoned, ethical decisions. |
| Communicators | We express ourselves confidently and creatively in more than one language and in many ways. We collaborate effectively, listening carefully to the perspectives of other individuals and groups. |
| Principled | We act with integrity and honesty, with a strong sense of fairness and justice, and with respect for the dignity and rights of people everywhere. We take responsibility for our actions and their consequences. |
| Open-minded | We critically appreciate our own cultures and personal histories, as well as the values and traditions of others. We seek and evaluate a range of points of view, and we are willing to grow from the experience. |
| Caring | We show empathy, compassion and respect. We have a commitment to service, and we act to make a positive difference in the lives of others and in the world around us. |
| Risk-takers | We approach uncertainty with forethought and determination; we work independently and cooperatively to explore new ideas and innovative strategies. We are resourceful and resilient in the face of challenges and change. |
| Balanced | We understand the importance of balancing different aspects of our lives—intellectual, physical, and emotional—to achieve well-being for ourselves and others. We recognize our interdependence with other people and with the world in which we live. |
| Reflective | We thoughtfully consider the world and our own ideas and experience. We work to understand our strengths and weaknesses in order to support our learning and personal development. |

## Appendix 2: Qualitative Survey Questions

Six open-ended survey questions were related to the LPAs which, according to IB documentation, develop IM in students. The questions were:

1. Can you share an example of a time or situation when you acted *knowledgeable* in a cross-cultural situation? Please describe.

2. Can you share an example of a time or situation when you acted *open-minded* about another culture or in a cross-cultural situation? Please describe.

3. Are there other forms of *communication* or expression you use when you can't express yourself through language? Can you share an example of a time or situation when you used specific communication skills in a cross-cultural situation? Please describe.

4. Can you share an example of a time or situation when you used specific ways of *critical thinking* in or about a cross-cultural situation? Please describe.

5. Can you share or describe an example of a time or situation when you thought you were particularly *caring* or *principled* in a cross-cultural situation? Please describe.

6. Can you share an example of a time or situation in which you took *action* on a global or cross-cultural issue? Please describe.

# Appendix 3: Scale of Total Variance Explained

| | Total Variance Explained | | | | | | |
|---|---|---|---|---|---|---|---|
| | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | | | Rotation Sums of Squared Loadings[a] |
| Component | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % | Total |
| 1 | 10.429 | 20.449 | 20.449 | 10.429 | 20.449 | 20.449 | 6.718 |
| 2 | 3.436 | 6.737 | 27.186 | 3.436 | 6.737 | 27.186 | 3.171 |
| 3 | 3.069 | 6.017 | 33.203 | 3.069 | 6.017 | 33.203 | 4.886 |
| 4 | 2.455 | 4.815 | 38.018 | 2.455 | 4.815 | 38.018 | 3.095 |
| 5 | 2.392 | 4.690 | 42.708 | 2.392 | 4.690 | 42.708 | 5.521 |
| 6 | 2.004 | 3.930 | 46.637 | 2.004 | 3.930 | 46.637 | 2.374 |
| 7 | 1.919 | 3.764 | 50.401 | 1.919 | 3.764 | 50.401 | 4.305 |
| 8 | 1.513 | 2.967 | 53.368 | 1.513 | 2.967 | 53.368 | 4.767 |
| ... | ... | ... | ... | | | | |
| 51 | .121 | .238 | 100.000 | | | | |

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

# Appendix 4: Pattern Matrix

<div align="center">Pattern Matrix[a]</div>

| | Component | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Q.13.5 I know the rules for expressing nonverbal behaviour in another culture. | .685 | | | | | | | |
| Q.9.4 I know the rules (e.g. vocabulary, grammar) of other languages. | .667 | | | | | | | |
| Q.15.1 I know the arts and crafts of other cultures. | .642 | | | | | | | |
| Q.13.1 I know the marriage systems of other cultures. | .594 | | | | | | | |
| Q.16.1 I am conscious of the cultural knowledge I use when interacting with people with different cultural backgrounds. | .579 | | | | | | | |
| Q.11.1 I know the cultural values and religious beliefs of other cultures. | .571 | | | | | | | |
| Q.13.4 I am able to communicate in different ways with people from different cultures. | .562 | | | | | | | |
| Q.10.1 I can discuss cultural differences from an informed perspective. | .523 | | | | | | | |
| Q.9.1 I know the legal and economic systems of other cultures. | .522 | | | | | | | |
| Q.16.5 I am conscious of the cultural knowledge I apply to cross-cultural interactions. | .521 | | | | | | | |
| Q.14.5 I check the accuracy of my cultural knowledge as I interact with people from different cultures. | .487 | | | | | | | |
| Q.12.4 I don't care if people make racist statements against other racial/ethnic groups. | | .796 | | | | | | |
| Q.5.5 I rarely think about the impact of a racist or ethnic joke on the feelings of people who are targeted. | | .785 | | | | | | |
| Q.15.5 When I hear people make racist jokes, I tell them I am offended even though they are not referring to my racial/ethnic group. | | .633 | | | | | | |
| Q.12.2 I am sensitive to those who are discriminated against. | | .461 | | | | | | |
| Q.6.2 I can explain my personal values to people who are different from me. | | | .708 | | | | | |
| Q.4.3 I put my beliefs into action by standing up for my principles. | | | .702 | | | | | |
| Q.8.2 I know who I am as a person. | | | .672 | | | | | |
| Q.4.2 I am willing to defend my own views when they differ from others. | | | .645 | | | | | |
| Q.10.2 I have a definite purpose in my life. | | | .499 | | | | | |
| Q.9.5 I feel comfortable expressing my views regarding a pressing global problem in front of a group of people. | | | .480 | | | | | |
| Q.3.5 I can discuss cultural differences from an informed perspective. | | | .449 | | | | | |
| Q.7.5 When I know my friends are treated unfairly because of their racial or ethnic backgrounds, I speak up for them. | | | .439 | | | | | |
| Q.7.4 I change my nonverbal behaviour when a cross-cultural situation requires it. | | | | .780 | | | | |
| Q.11.4 I often adapt my communication style to other people's cultural background. | | | | .761 | | | | |
| Q.3.4 I change my verbal behaviour (e.g. accent, tone) when a cross-cultural interaction requires it. | | | | .759 | | | | |
| Q.5.4 I use pause and silence differently to suit different cross-cultural situations. | | | | .539 | | | | |
| Q.9.2 I enjoy living in cultures that are unfamiliar to me. | | | | | .779 | | | |
| Q.16.3 I welcome working with people who have different cultural values from me. | | | | | .719 | | | |
| Q.16.4 I am confident that I can thrive in any culture or country. | | | | | .646 | | | |
| Q.3.2 I enjoy interacting with people from different cultures. | | | | | .608 | | | |
| Q.17.2 I seek opportunities to speak with individuals of other racial/ethnic backgrounds about their experiences. | | | | | .491 | | | |
| Q.7.2 I am sure I can deal with the stresses of adjusting to a culture that is new to me. | | | | | .469 | | | |
| Q.13.3 I enjoy when my friends from other cultures teach me about our cultural differences. | | | | | .468 | | | |
| Q.4.4 I feel uncomfortable when I am around a significant number of people who are racially/ethnically different than me. | | | | | .432 | | | |
| Q.9.3 I adjust my cultural knowledge as I interact with people from a culture that is unfamiliar to me. | | | | | .423 | | | |
| Q.4.1 I rarely question what I have been taught about the world around me. | | | | | | .788 | | |
| Q.6.1 I rely primarily on authorities to determine what is true in the world. | | | | | | .644 | | |
| Q.10.5 It is difficult for me to relate to stories in which people talk about racial/ethnic discrimination they experience in their day to day lives. | | | | | | | .781 | |
| Q.10.4 When other people struggle with racial/ethnic oppression, I share their frustration. | | | | | | | .742 | |
| Q.8.5 It is difficult for me to put myself in the shoes of someone who is racially/ethnically different from me. | | | | | | | .607 | |
| Q.8.4 I share the anger of those who face injustice because of their racial /ethnic backgrounds. | | | | | | | .579 | |
| Q.11.5 I don't know a lot of information about important social and political events of racial and ethnic groups other than my own. | | | | | | | .523 | |
| Q.12.5 It is easy for me to understand what it would feel like to be a person of another racial/ethnic background other than my own. | | | | | | | .464 | |
| Q.4.5 I can relate to the frustration that some people feel about having fewer opportunities due to their racial/ethnic backgrounds. | | | | | | | .427 | |
| Q.6.3 I think of my life in terms of giving back to society. | | | | | | | | .778 |
| Q.14.3 I work for the rights of others. | | | | | | | | .716 |
| Q.12.3 I put the needs of others above my own personal wants. | | | | | | | | .636 |
| Q.14.1 I know several ways in which I can make a difference on some of the world's most worrisome problems. | | | | | | | | .628 |
| Q.12.1 I know how to help mitigate a global problem (environmental or social). | | | | | | | | .452 |
| Q.8.3 I consciously behave in terms of making a difference. | | | | | | | | .423 |

Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.[a]

a. Rotation converged in 21 iterations.

# Appendix 5: Information Letter for Legal Guardians

This letter is based on a letter previously used by the IB research team for another study. This specific letter was used before 31st May 2018 and amended to an opt-in version after this date.

**DIPLOMA PROGRAMME INTERNATIONAL MINDEDNESS SURVEY**

As a student studying the IB Diploma Programme, we are inviting your child to participate in a research project titled "The impact of the IB Diploma Programme music course on developing international mindedness in learners". This study is being conducted as part of a PhD study at the University of Durham, UK, in the period 2017-2019 and your son's/daughter's school has been selected to take part in the research.

International mindedness is a foundational principle of an IB education and all programmes and courses are geared at developing international minded learners. The aim of this study is to investigate the impact of the Diploma Programme (DP) music course on the development of international mindedness in students and to identify if there is any significant difference in comparison to development of international mindedness through other DP courses. Although the study is aimed at gaining insight into the impact of music education, your son/daughter does not need to be enrolled in a music programme to complete the survey. Responses collected from students who are not enrolled in a music programme will be compared with data collected from students who do enrol in a music programme.

The results of the survey will inform programme and course development, with the ultimate goal being to make recommendations on how to adapt Diploma Programme courses, and especially the DP music course should the research results suggest a need for it. The project will survey DP students at two time points, at the beginning of their Diploma Programme, and towards the end of their second year, before their final exams.

**At this time, I would like to ask students to trial the developed survey and offer feedback on how to improve the survey before its launch later this year.**

**Voluntary participation**

Participation in this study and in testing the survey is entirely voluntary and you or your child can choose not to participate at all or to leave the study at any time. Regardless of your or your child's decision, there will be no effect on your or your child's relationship with the school or any other negative consequences.

Your child is being asked to take part in this study because they are a first year Diploma Programme student and attend one of the participating schools. In the course of the coming two years, they will be asked to fill out three online surveys containing questions regarding the international mindedness in the IB as well as

various background questions. The survey should take approximately 30 minutes to complete, and students are asked to answer the questions either in private, in their own time, or during the school day at a time designated by the DP coordinator or a teacher.

## Confidentiality

All responses to this survey will remain anonymous and will not be linked to your child in any way. Any identifying information about your child will solely be used to keep track of the survey response. In the analysis, your child's survey will be identified with a random number. Once your child submits their completed survey, it will not be possible to withdraw their responses from the study.

At the beginning of the survey, your child will be asked to provide formal consent that they agree or disagree to participate in the study. The researcher will keep track of which students participated in this study for administrative purposes but will not share the names of individual students who have or have not filled in the questionnaire or any individual student records with schools or any third parties.

You can withdraw your child from the study by signing the form at the end of this document and returning it to your child's school.

## Data protection

Study data will be kept in a digital format. Only the researcher will have access to the data.

There are no risks associated with this study, although it is possible that due to the personal nature of questions relating to student attitudes some of the survey questions could make your child feel uncomfortable. While you and your child will not experience any direct benefits from participation, information collected in this study may benefit other students in the future. Also, engaging with the survey may help your child to become more aware of their own attitudes around international mindedness and learner profile attributes connected to international mindedness.

## Questions

If you or your child have any questions regarding this research project in general, please contact the research, Christina Haaf, at christina.haaf@durham.ac.uk.

An ethics review of this study was completed by Durham University. Please contact Durham University ethics committee, which is not directly affiliated with the research, if you have questions about your child's role and rights as a research participant, or have concerns, complaints or general questions about the research:

Tel: +44-(0)191-334-8403 or email: ed.ethics@durham.ac.uk.

**Aims**

- Increase the body of research knowledge on the development of international mindedness
- Inform IB Diploma Programme curriculum development staff and the research community of the situation in developing international mindedness in learners through DP courses, especially DP music
- Improve the curriculum of the Diploma Programme, especially the DP music course

**Envisaged use of Student Feedback**

- Publication of outcomes as part of a PhD thesis
- Internal use (reporting, presentations, newsletters, etc.)
- Professional development (examiner and teacher training)
- Academic research and publications (e.g. journals, conferences)
- Promotional purposes (brochures, flyers, website, etc.)

**Confidentiality**

- No individual student names will be included in any publication resulting from the study
- Information used and/or published will be made anonymous, meaning that study data cannot be linked to any living individual.

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## NON-CONSENT OF PARENT OR LEGAL GUARDIAN ON BEHALF OF MINOR PARTICIPANT

If you do **not** wish your son or daughter to take part in testing the survey, please fill in this form and send it back to your son/daughter's teacher **by July 20th, 2017**. Your son/daughter will then be removed from the sample. Questions about this form or the use of the material should be directed to Christina Haaf at christina.haaf@durham.ac.uk.

_____     _____

Printed Name of Minor                              Minor's Date of Birth


_____     _____

(Handwritten) Signature of Parent or Legal Guardian     Date


_____

Printed Name of Parent of Legal Guardian

# Appendix 6: Analysis of Scales of the International Mindedness Survey

## Component (Scale) 1 (Perceived Intercultural Knowledge and Knowledgeable Behaviour)

### *Total Pre-test (192 Responses)*

### Inter-Item Correlations

**Summary Item Statistics Pre-test**

|  | Mean | Minimum | Maximum | Range | Maximum / Minimum | Variance | N of Items |
|---|---|---|---|---|---|---|---|
| Inter-Item Correlations | .391 | .161 | .628 | .467 | 3.894 | .010 | 11 |

### Reliability Statistics

**Total Pre-test (192 Responses)**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
|---|---|---|
| .870 | .876 | 11 |

### Item-Total Statistics

**Item-Total Statistics Pre-test**

|  | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|---|
| Q.13.5 I know the rules for expressing nonverbal behaviour in another culture. | 41.48 | 50.691 | .657 | .494 | .853 |
| Q.9.4 I know the rules (e.g. vocabulary, grammar) of other languages. | 41.22 | 53.648 | .445 | .252 | .870 |
| Q.15.1 I know the arts and crafts of other cultures. | 41.29 | 52.938 | .568 | .344 | .859 |
| Q.13.1 I know the marriage systems of other cultures. | 41.55 | 52.207 | .583 | .376 | .858 |
| Q.16.1 I am conscious of the cultural knowledge I use when interacting with people with different cultural backgrounds. | 40.64 | 53.498 | .639 | .526 | .855 |
| Q.11.1 I know the cultural values and religious beliefs of other cultures. | 40.70 | 54.241 | .615 | .464 | .857 |
| Q.13.4 I am able to communicate in different ways with people from different cultures. | 40.67 | 52.818 | .678 | .524 | .852 |
| Q.10.1 I can discuss cultural differences from an informed perspective. | 40.66 | 54.059 | .630 | .476 | .856 |
| Q.9.1 I know the legal and economic systems of other cultures. | 41.62 | 53.347 | .481 | .324 | .867 |
| Q.16.5 I am conscious of the cultural knowledge I apply to cross-cultural interactions. | 40.64 | 54.388 | .613 | .509 | .857 |
| Q.14.5 I check the accuracy of my cultural knowledge as I interact with people from different cultures. | 40.62 | 55.734 | .472 | .342 | .865 |

*Paired Pre-test (65 Responses)*

## Inter-Item Correlations

**Summary Item Statistics Pre-test**

|  | Mean | Minimum | Maximum | Range | Maximum / Minimum | Variance | N of Items |
|---|---|---|---|---|---|---|---|
| Inter-Item Correlations | .393 | .099 | .694 | .595 | 7.007 | .018 | 11 |

## Reliability Statistics

**Pre-test on Pairs (65 Responses)**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
|---|---|---|
| .872 | .877 | 11 |

## Item-Total Statistics

**Item-Total Statistics Pre-test**

|  | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|---|
| Q.13.5 I know the rules for expressing nonverbal behaviour in another culture. | 41.35 | 50.451 | .676 | .610 | .853 |
| Q.9.4 I know the rules (e.g. vocabulary, grammar) of other languages. | 40.78 | 52.515 | .533 | .468 | .865 |
| Q.15.1 I know the arts and crafts of other cultures. | 41.23 | 56.087 | .408 | .319 | .872 |
| Q.13.1 I know the marriage systems of other cultures. | 41.35 | 53.857 | .590 | .436 | .860 |
| Q.16.1 I am conscious of the cultural knowledge I use when interacting with people with different cultural backgrounds. | 40.40 | 54.431 | .603 | .596 | .859 |
| Q.11.1 I know the cultural values and religious beliefs of other cultures. | 40.58 | 54.778 | .690 | .604 | .856 |
| Q.13.4 I am able to communicate in different ways with people from different cultures. | 40.51 | 52.973 | .667 | .605 | .855 |
| Q.10.1 I can discuss cultural differences from an informed perspective. | 40.54 | 54.065 | .625 | .638 | .858 |
| Q.9.1 I know the legal and economic systems of other cultures. | 41.49 | 51.473 | .571 | .413 | .862 |
| Q.16.5 I am conscious of the cultural knowledge I apply to cross-cultural interactions. | 40.49 | 54.254 | .607 | .547 | .859 |
| Q.14.5 I check the accuracy of my cultural knowledge as I interact with people from different cultures. | 40.34 | 56.040 | .442 | .485 | .869 |

*Paired Post-test (65 Responses)*

## Inter-Item Correlations

**Summary Item Statistics Post-test**

| | Mean | Minimum | Maximum | Range | Maximum / Minimum | Variance | N of Items |
|---|---|---|---|---|---|---|---|
| Inter-Item Correlations | .371 | -.064 | .738 | .802 | -11.623 | .024 | 11 |

## Reliability Statistics

**Post-test on Pairs (65 Responses)**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
|---|---|---|
| .858 | .866 | 11 |

## Item-Total Statistics

**Item-Total Statistics Post-test**

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|---|
| Q.13.5 I know the rules for expressing nonverbal behaviour in another culture. | 42.88 | 48.828 | .675 | .594 | .836 |
| Q.9.4 I know the rules (e.g. vocabulary, grammar) of other languages. | 42.25 | 52.157 | .410 | .409 | .858 |
| Q.15.1 I know the arts and crafts of other cultures. | 42.86 | 51.902 | .397 | .425 | .860 |
| Q.13.1 I know the marriage systems of other cultures. | 43.03 | 49.187 | .561 | .594 | .846 |
| Q.16.1 I am conscious of the cultural knowledge I use when interacting with people with different cultural backgrounds. | 42.23 | 51.055 | .652 | .679 | .839 |
| Q.11.1 I know the cultural values and religious beliefs of other cultures. | 42.37 | 50.330 | .715 | .677 | .835 |
| Q.13.4 I am able to communicate in different ways with people from different cultures. | 42.14 | 51.684 | .663 | .661 | .840 |
| Q.10.1 I can discuss cultural differences from an informed perspective. | 42.20 | 53.694 | .451 | .500 | .853 |
| Q.9.1 I know the legal and economic systems of other cultures. | 43.17 | 48.893 | .583 | .463 | .843 |
| Q.16.5 I am conscious of the cultural knowledge I apply to cross-cultural interactions. | 42.23 | 50.524 | .694 | .587 | .836 |
| Q.14.5 I check the accuracy of my cultural knowledge as I interact with people from different cultures. | 42.18 | 54.465 | .377 | .313 | .858 |

## Component (Scale) 2 (Ethical Intercultural Values)

### Total Pre-test (192 Responses)

### Inter-Item Correlations

**Summary Item Statistics Pre-test**

|  | Mean | Minimum | Maximum | Range | Maximum / Minimum | Variance | N of Items |
|---|---|---|---|---|---|---|---|
| Inter-Item Correlations | .433 | .304 | .583 | .279 | 1.918 | .011 | 4 |

### Reliability Statistics

**Total Pre-test (192 Responses)**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
|---|---|---|
| .745 | .753 | 4 |

### Item-Total Statistics

**Item-Total Statistics Pre-test**

|  | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|---|
| Q.12.4 I don't care if people make racist statements against other racial/ethnic groups. | 13.05 | 8.726 | .665 | .450 | .627 |
| Q.5.5 I rarely think about the impact of a racist or ethnic joke on the feelings of people who are targeted. | 13.54 | 7.339 | .595 | .389 | .657 |
| Q.15.5 When I hear people make racist jokes, I tell them I am offended even though they are not referring to my racial/ethnic group. | 14.58 | 7.595 | .553 | .313 | .686 |
| Q.12.2 I am sensitive to those who are discriminated against. | 13.43 | 11.063 | .407 | .192 | .754 |

## Inter-Item Correlations

**Summary Item Statistics Pre-test**

| | Mean | Minimum | Maximum | Range | Maximum / Minimum | Variance | N of Items |
|---|---|---|---|---|---|---|---|
| Inter-Item Correlations | .429 | .232 | .616 | .384 | 2.650 | .020 | 4 |

## Reliability Statistics

**Paired Pre-test (65 Responses)**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
|---|---|---|
| .741 | .750 | 4 |

## Item-Total Statistics

**Item-Total Statistics Pre-test**

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|---|
| Q.12.4 I don't care if people make racist statements against other racial/ethnic groups. | 13.48 | 8.003 | .621 | .410 | .650 |
| Q.5.5 I rarely think about the impact of a racist or ethnic joke on the feelings of people who are targeted. | 13.86 | 5.652 | .698 | .501 | .575 |
| Q.15.5 When I hear people make racist jokes, I tell them I am offended even though they are not referring to my racial/ethnic group. | 15.20 | 6.069 | .562 | .341 | .682 |
| Q.12.2 I am sensitive to those who are discriminated against. | 13.95 | 10.107 | .365 | .152 | .767 |

*Paired Post-test (65 Responses)*

## Inter-Item Correlations

**Summary Item Statistics Post-test**

| | Mean | Minimum | Maximum | Range | Maximum / Minimum | Variance | N of Items |
|---|---|---|---|---|---|---|---|
| Inter-Item Correlations | .341 | .178 | .531 | .354 | 2.991 | .018 | 4 |

## Reliability Statistics

**Paired Post-test (65 Responses)**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
|---|---|---|
| .664 | .675 | 4 |

## Item-Total Statistics

**Item-Total Statistics Post-test**

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|---|
| Q.12.4 I don't care if people make racist statements against other racial/ethnic groups. | 12.86 | 7.465 | .481 | .361 | .575 |
| Q.5.5 I rarely think about the impact of a racist or ethnic joke on the feelings of people who are targeted. | 13.17 | 6.393 | .602 | .409 | .481 |
| Q.15.5 When I hear people make racist jokes, I tell them I am offended even though they are not referring to my racial/ethnic group. | 14.26 | 6.790 | .362 | .212 | .675 |
| Q.12.2 I am sensitive to those who are discriminated against. | 13.06 | 8.559 | .378 | .185 | .640 |

## Component (Scale) 3 (Personal Intercultural Confidence and Identity)

*Total Pre-test (192 Responses)*

### Inter-Item Correlations

**Summary Item Statistics Pre-test**

| | Mean | Minimum | Maximum | Range | Maximum / Minimum | Variance | N of Items |
|---|---|---|---|---|---|---|---|
| Inter-Item Correlations | .322 | .119 | .524 | .405 | 4.405 | .010 | 8 |

### Reliability Statistics

**Total Pre-test (192 Responses)**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
|---|---|---|
| .779 | .791 | 8 |

### Item-Total Statistics

**Item-Total Statistics Pre-test**

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|---|
| Q.6.2 I can explain my personal values to people who are different from me. | 32.61 | 23.433 | .570 | .343 | .744 |
| Q.4.3 I put my beliefs into action by standing up for my principles. | 32.74 | 23.063 | .624 | .468 | .737 |
| Q.8.2 I know who I am as a person. | 33.05 | 21.050 | .591 | .406 | .734 |
| Q.4.2 I am willing to defend my own views when they differ from others. | 32.51 | 23.832 | .462 | .316 | .758 |
| Q.10.2 I have a definite purpose in my life. | 33.65 | 22.031 | .394 | .288 | .778 |
| Q.9.5 I feel comfortable expressing my views regarding a pressing global problem in front of a group of people. | 33.23 | 21.822 | .487 | .297 | .755 |
| Q.3.5 I can discuss cultural differences from an informed perspective. | 32.81 | 24.457 | .409 | .201 | .766 |
| Q.7.5 When I know my friends are treated unfairly because of their racial or ethnic backgrounds, I speak up for them. | 32.42 | 24.078 | .415 | .251 | .765 |

## Paired Pre-test (65 Responses)

### Inter-Item Correlations

**Summary Item Statistics Pre-test**

| | Mean | Minimum | Maximum | Range | Maximum / Minimum | Variance | N of Items |
|---|---|---|---|---|---|---|---|
| Inter-Item Correlations | .262 | -.179 | .490 | .669 | -2.734 | .027 | 8 |

### Reliability Statistics

**Paired Pre-test (65 Responses)**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
|---|---|---|
| .730 | .739 | 8 |

### Item-Total Statistics

**Item-Total Statistics Pre-test**

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|---|
| Q.6.2 I can explain my personal values to people who are different from me. | 32.82 | 18.840 | .651 | .455 | .667 |
| Q.4.3 I put my beliefs into action by standing up for my principles. | 32.92 | 19.353 | .501 | .408 | .689 |
| Q.8.2 I know who I am as a person. | 33.15 | 18.445 | .566 | .418 | .674 |
| Q.4.2 I am willing to defend my own views when they differ from others. | 32.52 | 20.660 | .332 | .236 | .719 |
| Q.10.2 I have a definite purpose in my life. | 33.88 | 17.828 | .401 | .407 | .713 |
| Q.9.5 I feel comfortable expressing my views regarding a pressing global problem in front of a group of people. | 33.46 | 17.471 | .451 | .327 | .699 |
| Q.3.5 I can discuss cultural differences from an informed perspective. | 33.15 | 22.445 | .127 | .185 | .751 |
| Q.7.5 When I know my friends are treated unfairly because of their racial or ethnic backgrounds, I speak up for them. | 32.48 | 19.378 | .445 | .271 | .698 |

*Paired Post-test (65 Responses)*

## Inter-Item Correlations

**Summary Item Statistics Post-test**

| | Mean | Minimum | Maximum | Range | Maximum / Minimum | Variance | N of Items |
|---|---|---|---|---|---|---|---|
| Inter-Item Correlations | .241 | -.058 | .568 | .626 | -9.726 | .018 | 8 |

## Reliability Statistics

**Paired Post-test (65 Responses)**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
|---|---|---|
| .707 | .718 | 8 |

## Item-Total Statistics

**Item-Total Statistics Post-test**

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|---|
| Q.6.2 I can explain my personal values to people who are different from me. | 32.37 | 20.049 | .394 | .414 | .684 |
| Q.4.3 I put my beliefs into action by standing up for my principles. | 32.42 | 19.997 | .415 | .349 | .681 |
| Q.8.2 I know who I am as a person. | 32.89 | 17.348 | .491 | .463 | .657 |
| Q.4.2 I am willing to defend my own views when they differ from others. | 32.28 | 20.266 | .207 | .219 | .718 |
| Q.10.2 I have a definite purpose in my life. | 33.51 | 15.223 | .511 | .409 | .653 |
| Q.9.5 I feel comfortable expressing my views regarding a pressing global problem in front of a group of people. | 32.71 | 17.804 | .376 | .352 | .686 |
| Q.3.5 I can discuss cultural differences from an informed perspective. | 32.54 | 19.502 | .407 | .347 | .679 |
| Q.7.5 When I know my friends are treated unfairly because of their racial or ethnic backgrounds, I speak up for them. | 32.45 | 18.157 | .470 | .285 | .663 |

## Component (Scale) 4 (Effective Intercultural Communication)

### *Total Pre-test (192 Responses)*

### Inter-Item Correlations

**Summary Item Statistics Pre-test**

|  | Mean | Minimum | Maximum | Range | Maximum / Minimum | Variance | N of Items |
|---|---|---|---|---|---|---|---|
| Inter-Item Correlations | .414 | .276 | .510 | .234 | 1.849 | .007 | 4 |

### Reliability Statistics

**Pre-test (192 Responses)**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
|---|---|---|
| .735 | .739 | 4 |

### Item-Total Statistics

**Item-Total Statistics Pre-test**

|  | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|---|
| Q.7.4 I change my nonverbal behaviour when a cross-cultural situation requires it. | 11.23 | 8.966 | .604 | .375 | .630 |
| Q.11.4 I often adapt my communication style to other people's cultural background. | 11.05 | 10.081 | .541 | .325 | .672 |
| Q.3.4 I change my verbal behaviour (e.g. accent, tone) when a cross-cultural interaction requires it. | 11.60 | 8.010 | .561 | .322 | .661 |
| Q.5.4 I use pause and silence differently to suit different cross-cultural situations. | 11.48 | 10.366 | .425 | .193 | .729 |

## Paired Pre-test (65 Responses)

## Inter-Item Correlations

**Summary Item Statistics Pre-test**

|  | Mean | Minimum | Maximum | Range | Maximum / Minimum | Variance | N of Items |
|---|---|---|---|---|---|---|---|
| Inter-Item Correlations | .461 | .351 | .566 | .214 | 1.609 | .008 | 4 |

## Reliability Statistics

**Paired Pre-test (65 Responses)**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
|---|---|---|
| .771 | .774 | 4 |

## Item-Total Statistics

**Item-Total Statistics Pre-test**

|  | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|---|
| Q.7.4 I change my nonverbal behaviour when a cross-cultural situation requires it. | 11.26 | 9.821 | .588 | .372 | .708 |
| Q.11.4 I often adapt my communication style to other people's cultural background. | 11.12 | 10.047 | .641 | .432 | .686 |
| Q.3.4 I change my verbal behaviour (e.g. accent, tone) when a cross-cultural interaction requires it. | 11.63 | 8.049 | .630 | .405 | .691 |
| Q.5.4 I use pause and silence differently to suit different cross-cultural situations. | 11.58 | 11.153 | .463 | .218 | .768 |

*Paired Post-test (65 Responses)*

## Inter-Item Correlations

**Summary Item Statistics Post-test**

|  | Mean | Minimum | Maximum | Range | Maximum / Minimum | Variance | N of Items |
|---|---|---|---|---|---|---|---|
| Inter-Item Correlations | .419 | .272 | .539 | .267 | 1.980 | .008 | 4 |

## Reliability Statistics

**Paired Post-test (65 Responses)**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
|---|---|---|
| .731 | .742 | 4 |

## Item-Total Statistics

**Item-Total Statistics Post-test**

|  | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|---|
| Q.7.4 I change my nonverbal behaviour when a cross-cultural situation requires it. | 11.91 | 8.116 | .606 | .388 | .641 |
| Q.11.4 I often adapt my communication style to other people's cultural background. | 12.03 | 7.905 | .487 | .289 | .690 |
| Q.3.4 I change my verbal behaviour (e.g. accent, tone) when a cross-cultural interaction requires it. | 12.14 | 7.059 | .488 | .318 | .698 |
| Q.5.4 I use pause and silence differently to suit different cross-cultural situations. | 12.29 | 6.991 | .546 | .315 | .657 |

## Component (Scale) 5 (Intercultural Open-mindedness)

*Total Pre-test (192 Responses)*

### Inter-Item Correlations

**Summary Item Statistics Pre-test**

| | Mean | Minimum | Maximum | Range | Maximum Minimum | Variance | N of Items |
|---|---|---|---|---|---|---|---|
| Inter-Item Correlations | .321 | .154 | .463 | .308 | 2.997 | .008 | 9 |

**Survey item 4.4. removed**
**Summary Item Statistics Pre-test**

| | Mean | Minimum | Maximum | Range | Maximum / Minimum | Variance | N of Items |
|---|---|---|---|---|---|---|---|
| Inter-Item Correlations | .343 | .188 | .463 | .275 | 2.464 | .007 | 8 |

### Reliability Statistics

| Pre-test (192 Responses) Survey item 4.4. included | | | Pre-test (192 Responses) Survey item 4.4. removed | | |
|---|---|---|---|---|---|
| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items | Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
| .794 | .809 | 9 | .796 | .807 | 8 |

### Item-Total Statistics

**Item-Total Statistics Pre-test**

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|---|
| Q.9.2 I enjoy living in cultures that are unfamiliar to me. | 38.61 | 23.150 | .658 | .455 | .747 |
| Q.16.3 I welcome working with people who have different cultural values from me. | 37.69 | 26.603 | .585 | .417 | .767 |
| Q.16.4 I am confident that I can thrive in any culture or country. | 38.67 | 24.485 | .462 | .325 | .779 |
| Q.3.2 I enjoy interacting with people from different cultures. | 37.50 | 27.686 | .492 | .326 | .778 |
| Q.17.2 I seek opportunities to speak with individuals of other racial/ethnic backgrounds about their experiences. | 38.76 | 24.654 | .522 | .334 | .769 |
| Q.7.2 I am sure I can deal with the stresses of adjusting to a culture that is new to me. | 38.43 | 25.378 | .481 | .282 | .774 |
| Q.13.3 I enjoy when my friends from other cultures teach me about our cultural differences. | 37.81 | 27.315 | .458 | .315 | .779 |
| Q.4.4 I feel uncomfortable when I am around a significant number of people who are racially/ethnically different than me. | 38.13 | 25.105 | .370 | .189 | .796 |
| Q.9.3 I adjust my cultural knowledge as I interact with people from a culture that is unfamiliar to me. | 38.32 | 26.209 | .470 | .238 | .776 |

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|---|
| Q.9.2 I enjoy living in cultures that are unfamiliar to me. | 33.74 | 17.783 | .632 | .423 | .752 |
| Q.16.3 I welcome working with people who have different cultural values from me. | 32.82 | 20.670 | .578 | .404 | .768 |
| Q.16.4 I am confident that I can thrive in any culture or country. | 33.80 | 18.526 | .480 | .321 | .782 |
| Q.3.2 I enjoy interacting with people from different cultures. | 32.64 | 21.626 | .485 | .324 | .780 |
| Q.17.2 I seek opportunities to speak with individuals of other racial/ethnic backgrounds about their experiences. | 33.90 | 18.785 | .531 | .334 | .770 |
| Q.7.2 I am sure I can deal with the stresses of adjusting to a culture that is new to me. | 33.57 | 19.440 | .488 | .282 | .777 |
| Q.13.3 I enjoy when my friends from other cultures teach me about our cultural differences. | 32.95 | 21.118 | .478 | .313 | .779 |
| Q.9.3 I adjust my cultural knowledge as I interact with people from a culture that is unfamiliar to me. | 33.46 | 20.291 | .464 | .233 | .780 |

## *Paired Pre-test (65 Responses)*

## Inter-Item Correlations

**Summary Item Statistics Pre-test**

| | Mean | Minimum | Maximum | Range | Maximum / Minimum | Variance | N of Items |
|---|---|---|---|---|---|---|---|
| Inter-Item Correlations | .377 | .105 | .648 | .543 | 6.181 | .015 | 9 |

**Survey Item 4.4. removed
Summary Item Statistics Pre-test**

| | Mean | Minimum | Maximum | Range | Maximum / Minimum | Variance | N of Items |
|---|---|---|---|---|---|---|---|
| Inter-Item Correlations | .395 | .105 | .648 | .543 | 6.181 | .016 | 8 |

## Reliability Statistics

| Paired Pre-test (65 Responses) Survey item 4.4. included | | | Paired Pre-test (65 Responses) Survey item 4.4. removed | | |
|---|---|---|---|---|---|
| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items | Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
| .834 | .845 | 9 | .829 | .839 | 8 |

## Item-Total Statistics (65 Responses)

**Item-Total Statistics Pre-test**

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|---|
| Q.9.2 I enjoy living in cultures that are unfamiliar to me. | 38.72 | 25.641 | .730 | .584 | .793 |
| Q.16.3 I welcome working with people who have different cultural values from me. | 37.82 | 28.559 | .724 | .615 | .802 |
| Q.16.4 I am confident that I can thrive in any culture or country. | 38.83 | 27.830 | .514 | .413 | .821 |
| Q.3.2 I enjoy interacting with people from different cultures. | 37.51 | 30.410 | .570 | .492 | .818 |
| Q.17.2 I seek opportunities to speak with individuals of other racial/ethnic backgrounds about their experiences. | 38.75 | 27.876 | .536 | .423 | .818 |
| Q.7.2 I am sure I can deal with the stresses of adjusting to a culture that is new to me. | 38.51 | 29.848 | .404 | .296 | .832 |
| Q.13.3 I enjoy when my friends from other cultures teach me about our cultural differences. | 37.88 | 30.516 | .512 | .418 | .821 |
| Q.4.4 I feel uncomfortable when I am around a significant number of people who are racially/ethnically different than me. | 38.15 | 27.757 | .463 | .316 | .829 |
| Q.9.3 I adjust my cultural knowledge as I interact with people from a culture that is unfamiliar to me. | 38.45 | 28.188 | .562 | .340 | .814 |

**Survey Item 4.4. removed**
**Item-Total Statistics Pre-test**

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|---|
| Q.9.2 I enjoy living in cultures that are unfamiliar to me. | 33.80 | 19.225 | .725 | .570 | .783 |
| Q.16.3 I welcome working with people who have different cultural values from me. | 32.89 | 21.785 | .718 | .600 | .793 |
| Q.16.4 I am confident that I can thrive in any culture or country. | 33.91 | 21.116 | .506 | .408 | .819 |
| Q.3.2 I enjoy interacting with people from different cultures. | 32.58 | 23.153 | .604 | .464 | .808 |
| Q.17.2 I seek opportunities to speak with individuals of other racial/ethnic backgrounds about their experiences. | 33.83 | 21.080 | .537 | .423 | .813 |
| Q.7.2 I am sure I can deal with the stresses of adjusting to a culture that is new to me. | 33.58 | 22.653 | .422 | .284 | .828 |
| Q.13.3 I enjoy when my friends from other cultures teach me about our cultural differences. | 32.95 | 23.576 | .493 | .390 | .818 |
| Q.9.3 I adjust my cultural knowledge as I interact with people from a culture that is unfamiliar to me. | 33.52 | 21.566 | .541 | .313 | .812 |

*Paired Post-test (65 Responses)*

## Inter-Item Correlations

| **Summary Item Statistics Pre-test** | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Mean | Minimum | Maximum | Range | Maximum / Minimum | Variance | N of Items |
| Inter-Item Correlations | .280 | -.009 | .563 | .572 | -61.871 | .021 | 9 |

| **Survey Item 4.4. removed** **Summary Item Statistics Pre-test** | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Mean | Minimum | Maximum | Range | Maximum / Minimum | Variance | N of Items |
| Inter-Item Correlations | .326 | .129 | .563 | .434 | 4.368 | .014 | 8 |

## Reliability Statistics

| **Paired Post-test (65 Responses)** **Survey item 4.4. included** | | | **Paired Post-test (65 Responses)** **Survey item 4.4. removed** | | |
|---|---|---|---|---|---|
| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items | Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
| .765 | .778 | 9 | .794 | .794 | 8 |

## Item-Total Statistics

| **Item-Total Statistics Post-test** | | | | | |
|---|---|---|---|---|---|
| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
| Q.9.2 I enjoy living in cultures that are unfamiliar to me. | 38.78 | 19.890 | .650 | .622 | .706 |
| Q.16.3 I welcome working with people who have different cultural values from me. | 38.12 | 23.391 | .495 | .339 | .738 |
| Q.16.4 I am confident that I can thrive in any culture or country. | 38.85 | 23.195 | .423 | .276 | .746 |
| Q.3.2 I enjoy interacting with people from different cultures. | 37.65 | 25.357 | .413 | .232 | .753 |
| Q.17.2 I seek opportunities to speak with individuals of other racial/ethnic backgrounds about their experiences. | 38.92 | 21.135 | .531 | .321 | .729 |
| Q.7.2 I am sure I can deal with the stresses of adjusting to a culture that is new to me. | 38.57 | 22.405 | .546 | .420 | .729 |
| Q.13.3 I enjoy when my friends from other cultures teach me about our cultural differences. | 38.17 | 22.112 | .515 | .423 | .732 |
| Q.4.4 I feel uncomfortable when I am around a significant number of people who are racially/ethnically different than me. | 38.52 | 24.128 | .186 | .168 | .794 |
| Q.9.3 I adjust my cultural knowledge as I interact with people from a culture that is unfamiliar to me. | 38.63 | 23.924 | .385 | .372 | .751 |

**Survey Item 4.4. removed**
**Item-Total Statistics Post-test**

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|---|
| Q.9.2 I enjoy living in cultures that are unfamiliar to me. | 34.03 | 15.968 | .723 | .614 | .729 |
| Q.16.3 I welcome working with people who have different cultural values from me. | 33.37 | 20.174 | .435 | .278 | .781 |
| Q.16.4 I am confident that I can thrive in any culture or country. | 34.09 | 19.554 | .425 | .267 | .783 |
| Q.3.2 I enjoy interacting with people from different cultures. | 32.89 | 21.504 | .430 | .228 | .785 |
| Q.17.2 I seek opportunities to speak with individuals of other racial/ethnic backgrounds about their experiences. | 34.17 | 17.799 | .515 | .306 | .771 |
| Q.7.2 I am sure I can deal with the stresses of adjusting to a culture that is new to me. | 33.82 | 18.559 | .586 | .420 | .758 |
| Q.13.3 I enjoy when my friends from other cultures teach me about our cultural differences. | 33.42 | 18.622 | .509 | .420 | .770 |
| Q.9.3 I adjust my cultural knowledge as I interact with people from a culture that is unfamiliar to me. | 33.88 | 19.953 | .424 | .372 | .783 |

## Component (Scale) 6 (Critical Inquiry, Thinking, and Reflection)

### *Total Pre-test (192 Responses)*

### Inter-Item Correlations

**Summary Item Statistics Pre-test**

| | Mean | Minimum | Maximum | Range | Maximum / Minimum | Variance | N of Items |
|---|---|---|---|---|---|---|---|
| Inter-Item Correlations | .433 | .433 | .433 | .000 | 1.000 | .000 | 2 |

### Reliability Statistics

**Pre-test (192 Responses)**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
|---|---|---|
| .604 | .604 | 2 |

### Item-Total Statistics

**Item-Total Statistics Pre-test**

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|---|
| Q.4.1 I rarely question what I have been taught about the world around me. | 4.06 | 1.640 | .433 | .188 | . |
| Q.6.1 I rely primarily on authorities to determine what is true in the world. | 4.39 | 1.632 | .433 | .188 | . |

### *Paired Pre-test (65 Responses)*

### Inter-Item Correlations

**Summary Item Statistics Pre-test**

| | Mean | Minimum | Maximum | Range | Maximum / Minimum | Variance | N of Items |
|---|---|---|---|---|---|---|---|
| Inter-Item Correlations | .518 | .518 | .518 | .000 | 1.000 | .000 | 2 |

### Reliability Statistics

**Paired Pre-test (65 Responses)**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
|---|---|---|
| .682 | .682 | 2 |

## Item-Total Statistics

**Item-Total Statistics Pre-test**

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|---|
| Q.4.1 I rarely question what I have been taught about the world around me. | 4.00 | 1.719 | .518 | .268 | . |
| Q.6.1 I rely primarily on authorities to determine what is true in the world. | 4.48 | 1.722 | .518 | .268 | . |

## *Paired Post-test (65 Responses)*

## Inter-Item Correlations

**Summary Item Statistics Post-test**

| | Mean | Minimum | Maximum | Range | Maximum / Minimum | Variance | N of Items |
|---|---|---|---|---|---|---|---|
| Inter-Item Correlations | .526 | .526 | .526 | .000 | 1.000 | .000 | 2 |

## Reliability Statistics

**Paired Post-test (65 Responses)**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
|---|---|---|
| .685 | .690 | 2 |

## Item-Total Statistics

**Item-Total Statistics Post-test**

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|---|
| Q.4.1 I rarely question what I have been taught about the world around me. | 4.17 | 1.518 | .526 | .277 | . |
| Q.6.1 I rely primarily on authorities to determine what is true in the world. | 4.37 | 2.018 | .526 | .277 | . |

## Component (Scale) 7 (Intercultural Empathy)

### Total Pre-test (192 Responses)

### Inter-Item Correlations

**Summary Item Statistics Pre-test**

| | Mean | Minimum | Maximum | Range | Maximum / Minimum | Variance | N of Items |
|---|---|---|---|---|---|---|---|
| Inter-Item Correlations | .314 | .121 | .527 | .406 | 4.342 | .012 | 7 |

**Survey item 11.5. removed**
**Summary Item Statistics Pre-test**

| | Mean | Minimum | Maximum | Range | Maximum / Minimum | Variance | N of Items |
|---|---|---|---|---|---|---|---|
| Inter-Item Correlations | .342 | .176 | .528 | .352 | 2.998 | .013 | 6 |

### Reliability Statistics

| Pre-test (192 Responses) Survey item 11.5. included | | | Pre-test (192 Responses) Survey item 11.5. removed | | |
|---|---|---|---|---|---|
| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items | Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
| .755 | .762 | 7 | .749 | .757 | 6 |

### Item-Total Statistics

**Item-Total Statistics Pre-test**

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|---|
| Q.10.5 It is difficult for me to relate to stories in which people talk about racial/ethnic discrimination they experience in their day to day lives. | 24.98 | 22.429 | .582 | .379 | .701 |
| Q.10.4 When other people struggle with racial/ethnic oppression, I share their frustration. | 24.60 | 23.141 | .639 | .467 | .694 |
| Q.8.5 It is difficult for me to put myself in the shoes of someone who is racially/ethnically different from me. | 24.59 | 24.232 | .478 | .315 | .725 |
| Q.8.4 I share the anger of those who face injustice because of their racial /ethnic backgrounds. | 24.43 | 24.843 | .430 | .293 | .734 |
| Q.11.5 I don't know a lot of information about important social and political events of racial and ethnic groups other than my own. | 24.98 | 25.356 | .357 | .157 | .749 |
| Q.12.5 It is easy for me to understand what it would feel like to be a person of another racial/ethnic background other than my own. | 24.97 | 23.182 | .474 | .290 | .726 |
| Q.4.5 I can relate to the frustration that some people feel about having fewer opportunities due to their racial/ethnic backgrounds. | 24.82 | 23.218 | .394 | .207 | .748 |

**Item-Total Statistics Pre-test**

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|---|
| Q.10.5 It is difficult for me to relate to stories in which people talk about racial/ethnic discrimination they experience in their day to day lives. | 21.07 | 17.359 | .590 | .378 | .684 |
| Q.10.4 When other people struggle with racial/ethnic oppression, I share their frustration. | 20.69 | 18.057 | .642 | .462 | .677 |
| Q.8.5 It is difficult for me to put myself in the shoes of someone who is racially/ethnically different from me. | 20.69 | 19.320 | .445 | .289 | .724 |
| Q.8.4 I share the anger of those who face injustice because of their racial /ethnic backgrounds. | 20.52 | 19.595 | .426 | .289 | .729 |
| Q.12.5 It is easy for me to understand what it would feel like to be a person of another racial/ethnic background other than my own. | 21.06 | 18.236 | .456 | .283 | .723 |
| Q.4.5 I can relate to the frustration that some people feel about having fewer opportunities due to their racial/ethnic backgrounds. | 20.91 | 17.831 | .414 | .206 | .740 |

## Paired Pre-test (65 Responses)

## Inter-Item Correlations

**Summary Item Statistics Pre-test**

| | Mean | Minimum | Maximum | Range | Maximum / Minimum | Variance | N of Items |
|---|---|---|---|---|---|---|---|
| Inter-Item Correlations | .269 | .045 | .510 | .465 | 11.444 | .021 | 7 |

**Survey item 11.5. removed**
**Summary Item Statistics Pre-test**

| | Mean | Minimum | Maximum | Range | Maximum / Minimum | Variance | N of Items |
|---|---|---|---|---|---|---|---|
| Inter-Item Correlations | .332 | .142 | .510 | .368 | 3.595 | .015 | 6 |

## Reliability Statistics

| **Paired Pre-test (65 Responses)** **Survey item 11.5. included** | | | **Paired Pre-test (65 Responses)** **Survey item 11.5. removed** | | |
|---|---|---|---|---|---|
| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items | Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
| .710 | .720 | 7 | .737 | .749 | 6 |

## Item-Total Statistics

**Item-Total Statistics Pre-test**

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|---|
| Q.10.5 It is difficult for me to relate to stories in which people talk about racial/ethnic discrimination they experience in their day to day lives. | 23.60 | 20.306 | .570 | .428 | .639 |
| Q.10.4 When other people struggle with racial/ethnic oppression, I share their frustration. | 23.06 | 21.090 | .563 | .368 | .645 |
| Q.8.5 It is difficult for me to put myself in the shoes of someone who is racially/ethnically different from me. | 22.91 | 22.085 | .477 | .311 | .666 |
| Q.8.4 I share the anger of those who face injustice because of their racial /ethnic backgrounds. | 22.75 | 21.501 | .502 | .358 | .659 |
| Q.11.5 I don't know a lot of information about important social and political events of racial and ethnic groups other than my own. | 23.54 | 24.565 | .165 | .043 | .737 |
| Q.12.5 It is easy for me to understand what it would feel like to be a person of another racial/ethnic background other than my own. | 23.42 | 22.622 | .283 | .127 | .714 |
| Q.4.5 I can relate to the frustration that some people feel about having fewer opportunities due to their racial/ethnic backgrounds. | 23.46 | 19.377 | .462 | .269 | .668 |

**Survey item 11.5. removed**
**Item-Total Statistics Pre-test**

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|---|
| Q.10.5 It is difficult for me to relate to stories in which people talk about racial/ethnic discrimination they experience in their day to day lives. | 20.02 | 17.047 | .594 | .428 | .666 |
| Q.10.4 When other people struggle with racial/ethnic oppression, I share their frustration. | 19.48 | 17.941 | .569 | .367 | .677 |
| Q.8.5 It is difficult for me to put myself in the shoes of someone who is racially/ethnically different from me. | 19.32 | 18.660 | .506 | .310 | .694 |
| Q.8.4 I share the anger of those who face injustice because of their racial /ethnic backgrounds. | 19.17 | 18.455 | .491 | .350 | .697 |
| Q.12.5 It is easy for me to understand what it would feel like to be a person of another racial/ethnic background other than my own. | 19.83 | 19.455 | .274 | .121 | .759 |
| Q.4.5 I can relate to the frustration that some people feel about having fewer opportunities due to their racial/ethnic backgrounds. | 19.88 | 16.172 | .478 | .269 | .705 |

## Paired Pre-test (65 Responses)

### Inter-Item Correlations

**Summary Item Statistics Post-test**

|  | Mean | Minimum | Maximum | Range | Maximum / Minimum | Variance | N of Items |
|---|---|---|---|---|---|---|---|
| Inter-Item Correlations | .183 | -.257 | .540 | .797 | -2.101 | .037 | 7 |

**Survey item 11.5. removed**
**Summary Item Statistics Post-test**

|  | Mean | Minimum | Maximum | Range | Maximum / Minimum | Variance | N of Items |
|---|---|---|---|---|---|---|---|
| Inter-Item Correlations | .244 | -.044 | .540 | .585 | -12.143 | .028 | 6 |

### Reliability Statistics

| Paired Post-test (65 Responses) Survey item 11.5. included | | | Paired Post-test (65 Responses) Survey item 11.5. removed | | |
|---|---|---|---|---|---|
| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items | Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
| .596 | .611 | 7 | .651 | .659 | 6 |

### Item-Total Statistics

**Item-Total Statistics Post-test**

|  | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|---|
| Q.10.5 It is difficult for me to relate to stories in which people talk about racial/ethnic discrimination they experience in their day to day lives. | 23.97 | 15.468 | .328 | .238 | .554 |
| Q.10.4 When other people struggle with racial/ethnic oppression, I share their frustration. | 23.72 | 16.203 | .280 | .330 | .570 |
| Q.8.5 It is difficult for me to put myself in the shoes of someone who is racially/ethnically different from me. | 23.80 | 13.725 | .509 | .367 | .485 |
| Q.8.4 I share the anger of those who face injustice because of their racial /ethnic backgrounds. | 23.40 | 13.806 | .493 | .421 | .490 |
| Q.11.5 I don't know a lot of information about important social and political events of racial and ethnic groups other than my own. | 23.86 | 17.840 | .037 | .151 | .651 |
| Q.12.5 It is easy for me to understand what it would feel like to be a person of another racial/ethnic background other than my own. | 23.82 | 14.403 | .534 | .341 | .488 |
| Q.4.5 I can relate to the frustration that some people feel about having fewer opportunities due to their racial/ethnic backgrounds. | 24.05 | 16.576 | .120 | .172 | .634 |

**Survey item 11.5. removed**
**Item-Total Statistics Post-test**

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|---|
| Q.10.5 It is difficult for me to relate to stories in which people talk about racial/ethnic discrimination they experience in their day to day lives. | 20.06 | 14.277 | .265 | .212 | .648 |
| Q.10.4 When other people struggle with racial/ethnic oppression, I share their frustration. | 19.82 | 14.247 | .313 | .330 | .631 |
| Q.8.5 It is difficult for me to put myself in the shoes of someone who is racially/ethnically different from me. | 19.89 | 12.441 | .469 | .360 | .575 |
| Q.8.4 I share the anger of those who face injustice because of their racial /ethnic backgrounds. | 19.49 | 11.816 | .551 | .421 | .541 |
| Q.12.5 It is easy for me to understand what it would feel like to be a person of another racial/ethnic background other than my own. | 19.91 | 12.835 | .529 | .338 | .560 |
| Q.4.5 I can relate to the frustration that some people feel about having fewer opportunities due to their racial/ethnic backgrounds. | 20.14 | 13.902 | .214 | .105 | .678 |

## Component (Scale) 8 (Global Engagement and Social Responsibility)

*Total Pre-test (192 Responses)*

## Inter-Item Correlations

**Summary Item Statistics Pre-test**

|  | Mean | Minimum | Maximum | Range | Maximum / Minimum | Variance | N of Items |
|---|---|---|---|---|---|---|---|
| Inter-Item Correlations | .386 | .185 | .594 | .409 | 3.213 | .013 | 6 |

## Reliability Statistics

**Total Pre-test (192 Responses)**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
|---|---|---|
| .792 | .790 | 6 |

## Item-Total Statistics

**Item-Total Statistics Pre-test**

|  | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|---|
| Q.6.3. I think of my life in terms of giving back to society. | 19.82 | 15.822 | .525 | .303 | .765 |
| Q.14.3. I work for the rights of others. | 20.09 | 14.368 | .685 | .496 | .724 |
| Q.12.3. I put the needs of others above my own personal wants. | 19.85 | 16.056 | .465 | .306 | .780 |
| Q.14.1. I know several ways in which I can make a difference on some of the world's most worrisome problems. | 20.22 | 14.782 | .624 | .504 | .740 |
| Q.12.1. I know how to help mitigate a global problem (environmental or social). | 20.18 | 16.087 | .550 | .386 | .759 |
| Q.8.3. I consciously behave in terms of making a difference. | 19.62 | 17.493 | .420 | .197 | .787 |

*Paired Pre-test (65 Responses)*

## Inter-Item Correlations

**Summary Item Statistics Pre-test**

|  | Mean | Minimum | Maximum | Range | Maximum / Minimum | Variance | N of Items |
|---|---|---|---|---|---|---|---|
| Inter-Item Correlations | .304 | .074 | .629 | .555 | 8.508 | .022 | 6 |

## Reliability Statistics

**Paired Pre-test (65 Responses)**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
|---|---|---|
| .727 | .724 | 6 |

## Item-Total Statistics

<div align="center"><strong>Item-Total Statistics Pre-test</strong></div>

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|---|
| Q.6.3. I think of my life in terms of giving back to society. | 19.31 | 13.998 | .348 | .151 | .719 |
| Q.14.3. I work for the rights of others. | 19.55 | 11.657 | .537 | .410 | .665 |
| Q.12.3. I put the needs of others above my own personal wants. | 19.18 | 12.778 | .450 | .299 | .692 |
| Q.14.1. I know several ways in which I can make a difference on some of the world's most worrisome problems. | 19.63 | 11.299 | .635 | .550 | .632 |
| Q.12.1. I know how to help mitigate a global problem (environmental or social). | 19.71 | 12.679 | .543 | .425 | .667 |
| Q.8.3. I consciously behave in terms of making a difference. | 19.00 | 14.281 | .267 | .120 | .742 |

## *Paired Post-test (65 Responses)*

## Inter-Item Correlations

<div align="center"><strong>Summary Item Statistics Post-test</strong></div>

| | Mean | Minimum | Maximum | Range | Maximum / Minimum | Variance | N of Items |
|---|---|---|---|---|---|---|---|
| Inter-Item Correlations | .287 | .095 | .628 | .533 | 6.618 | .018 | 6 |

## Reliability Statistics

<div align="center"><strong>Paired Post-test (65 Responses)</strong></div>

| Cronbach's Alpha | Cronbach's Alpha Based on Standardised Items | N of Items |
|---|---|---|
| .705 | .707 | 6 |

## Item-Total Statistics

<div align="center"><strong>Item-Total Statistics Post-test</strong></div>

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|---|
| Q.6.3. I think of my life in terms of giving back to society. | 20.46 | 12.065 | .338 | .184 | .698 |
| Q.14.3. I work for the rights of others. | 20.91 | 11.304 | .510 | .317 | .642 |
| Q.12.3. I put the needs of others above my own personal wants. | 20.54 | 11.815 | .461 | .288 | .658 |
| Q.14.1. I know several ways in which I can make a difference on some of the world's most worrisome problems. | 21.02 | 11.359 | .457 | .451 | .659 |
| Q.12.1. I know how to help mitigate a global problem (environmental or social). | 20.98 | 11.890 | .423 | .416 | .670 |
| Q.8.3. I consciously behave in terms of making a difference. | 20.55 | 11.907 | .437 | .243 | .666 |

# Appendix 7: Final Survey for Use in Analyses with Survey Items Grouped into Scales

## Scale 1: Perceived Intercultural Knowledge and Knowledgeable Behaviour

1. I know the rules for expressing nonverbal behaviour in another culture. (survey item 13.5.)
2. I know the rules (e.g. vocabulary, grammar) of other languages. (survey item 9.4.)
3. I know the arts and crafts of other cultures. (survey item 15.1.)
4. I know the marriage systems of other cultures. (survey item 13.1.)
5. I am conscious of the cultural knowledge I use when interacting with people with different cultural backgrounds. (survey item 16.1.)
6. I know the cultural values and religious beliefs of other cultures. (survey item 11.1.)
7. I am able to communicate in different ways with people from different cultures. (survey item 13.4.)
8. I can discuss cultural differences from an informed perspective. (survey item 10.1.)
9. I know the legal and economic systems of other cultures. (survey item 9.1.)
10. I am conscious of the cultural knowledge I apply to cross-cultural interactions. (survey item 16.5.)
11. I check the accuracy of my cultural knowledge as I interact with people from different cultures. (survey item 14.5.)


## Scale 2: Ethical Intercultural Values

1. I don't care if people make racist statements against other racial/ethnic groups. (survey item 12.4.)
2. I rarely think about the impact of a racist or ethnic joke on the feelings of people who are targeted. (survey item 5.5.)
3. When I hear people make racist jokes, I tell them I am offended even though they are not referring to my racial/ethnic group. (survey item 15.5.)
4. I am sensitive to those who are discriminated against. (survey item 12.2.)


## Scale 3: Personal Intercultural Confidence and Identity

1. I can explain my personal values to people who are different from me. (survey item 6.2.)
2. I put my beliefs into action by standing up for my principles. (survey item 4.3.)

3. I know who I am as a person. (survey item 8.2.)

4. I am willing to defend my own views when they differ from others. (survey item 4.2.)

5. I have a definite purpose in my life. (survey item 10.2.)

6. I feel comfortable expressing my views regarding a pressing global problem in front of a group of people. (survey item 9.5.)

7. I can discuss cultural differences from an informed perspective. (survey item 3.5.)

8. When I know my friends are treated unfairly because of their racial or ethnic backgrounds, I speak up for them. (survey item 7.5.)


## Scale 4: Effective Intercultural Communication

1. I change my nonverbal behaviour when a cross-cultural situation requires it. (survey item 7.4.)

2. I often adapt my communication style to other people's cultural background. (survey item 11.4.)

3. I change my verbal behaviour (e.g. accent, tone) when a cross-cultural interaction requires it. (survey item 3.4.)

4. I use pause and silence differently to suit different cross-cultural situations. (survey item 5.4.)


## Scale 5: Intercultural Open-mindedness

1. I enjoy living in cultures that are unfamiliar to me. (survey item 9.2.)

2. I welcome working with people who have different cultural values from me. (survey item 16.3.)

3. I am confident that I can thrive in any culture or country. (survey item 16.4.)

4. I enjoy interacting with people from different cultures. (survey item 3.2.)

5. I seek opportunities to speak with individuals of other racial/ethnic backgrounds about their experiences. (survey item 17.2.)

6. I am sure I can deal with the stresses of adjusting to a culture that is new to me. (survey item 7.2.)

7. I enjoy when my friends from other cultures teach me about our cultural differences. (survey item 13.3.)

8. I adjust my cultural knowledge as I interact with people from a culture that is unfamiliar to me. (survey item 9.3.)

## Scale 6 (previously 7): Intercultural Empathy

1. It is difficult for me to relate to stories in which people talk about racial/ethnic discrimination they experience in their day to day lives. (survey item 10.5.)

2. When other people struggle with racial/ethnic oppression, I share their frustration. (survey item 10.4.)

3. It is difficult for me to put myself in the shoes of someone who is racially/ethnically different from me. (survey item 8.5.)

4. I share the anger of those who face injustice because of their racial /ethnic backgrounds. (survey item 8.4.)

5. It is easy for me to understand what it would feel like to be a person of another racial/ethnic background other than my own. (survey item 12.5.)

6. I can relate to the frustration that some people feel about having fewer opportunities due to their racial/ethnic backgrounds. (survey item 4.5.)


## Scale 7 (previously 8): Global Engagement and Social Responsibility

1. I think of my life in terms of giving back to society. (survey item 6.3.)

2. I work for the rights of others. (survey item 14.3.)

3. I put the needs of others above my own personal wants. (survey item 12.3.)

4. I know several ways in which I can make a difference on some of the world's most worrisome problems. (survey item 14.1.)

5. I know how to help mitigate a global problem (environmental or social). (survey item 12.1.)

6. I consciously behave in terms of making a difference. (survey item 8.3.)

# Appendix 8: Pre- and Post-Test Analyses of Scales

## Scale 1: Perceived Knowledge and Knowledgeable Behaviour

### *Mixed Between-Within Subjects ANOVA: Arts-Option (Yes/No)*

**Multivariate Tests[a]**

| Effect | | Value | F | Hypothesis df | Error df | Sig. | Partial Eta Squared |
|---|---|---|---|---|---|---|---|
| time | Pillai's Trace | .075 | 5.105[b] | 1.000 | 63.000 | .027 | .075 |
| | Wilks' Lambda | .925 | 5.105[b] | 1.000 | 63.000 | .027 | .075 |
| | Hotelling's Trace | .081 | 5.105[b] | 1.000 | 63.000 | .027 | .075 |
| | Roy's Largest Root | .081 | 5.105[b] | 1.000 | 63.000 | .027 | .075 |
| time * A.Artsyesno | Pillai's Trace | .001 | .068[b] | 1.000 | 63.000 | .795 | .001 |
| | Wilks' Lambda | .999 | .068[b] | 1.000 | 63.000 | .795 | .001 |
| | Hotelling's Trace | .001 | .068[b] | 1.000 | 63.000 | .795 | .001 |
| | Roy's Largest Root | .001 | .068[b] | 1.000 | 63.000 | .795 | .001 |

a. Design: Intercept + A.Artsyesno
 Within Subjects Design: time
b. Exact statistic

**Tests of Between-Subjects Effects**

Measure:  MEASURE_1
Transformed Variable:  Average

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. | Partial Eta Squared |
|---|---|---|---|---|---|---|
| Intercept | 2208.915 | 1 | 2208.915 | 2513.688 | .000 | .976 |
| A.Artsyesno | .120 | 1 | .120 | .137 | .713 | .002 |
| Error | 55.362 | 63 | .879 | | | |

### *One-Way ANCOVA: Arts-Option (Yes/No)*

**Tests of Between-Subjects Effects**

Dependent Variable:  Mean2_B2_Knowledge

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. | Partial Eta Squared |
|---|---|---|---|---|---|---|
| Corrected Model | 14.783[a] | 2 | 7.392 | 26.189 | .000 | .458 |
| Intercept | 4.811 | 1 | 4.811 | 17.047 | .000 | .216 |
| Mean2_A2_Knowledge | 14.680 | 1 | 14.680 | 52.013 | .000 | .456 |
| A.Artsyesno | .044 | 1 | .044 | .156 | .694 | .003 |
| Error | 17.498 | 62 | .282 | | | |
| Total | 1206.537 | 65 | | | | |
| Corrected Total | 32.282 | 64 | | | | |

a. R Squared = .458 (Adjusted R Squared = .440)

# Scale 2: Ethical Intercultural Values

## *Mixed Between-Within Subjects ANOVA: Arts-Option (Yes/No)*

**Multivariate Tests[a]**

| Effect | | Value | F | Hypothesis df | Error df | Sig. | Partial Eta Squared |
|---|---|---|---|---|---|---|---|
| time | Pillai's Trace | .091 | 6.303[b] | 1.000 | 63.000 | .015 | .091 |
| | Wilks' Lambda | .909 | 6.303[b] | 1.000 | 63.000 | .015 | .091 |
| | Hotelling's Trace | .100 | 6.303[b] | 1.000 | 63.000 | .015 | .091 |
| | Roy's Largest Root | .100 | 6.303[b] | 1.000 | 63.000 | .015 | .091 |
| time * A.Artsyesno | Pillai's Trace | .015 | .953[b] | 1.000 | 63.000 | .333 | .015 |
| | Wilks' Lambda | .985 | .953[b] | 1.000 | 63.000 | .333 | .015 |
| | Hotelling's Trace | .015 | .953[b] | 1.000 | 63.000 | .333 | .015 |
| | Roy's Largest Root | .015 | .953[b] | 1.000 | 63.000 | .333 | .015 |

a. Design: Intercept + A.Artsyesno
 Within Subjects Design: time

b. Exact statistic

**Tests of Between-Subjects Effects**

Measure: MEASURE_1

Transformed Variable: Average

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. | Partial Eta Squared |
|---|---|---|---|---|---|---|
| Intercept | 2687.415 | 1 | 2687.415 | 2436.380 | .000 | .975 |
| A.Artsyesno | 1.302 | 1 | 1.302 | 1.180 | .281 | .018 |
| Error | 69.491 | 63 | 1.103 | | | |

## *Mixed Between-Within Subjects ANOVA: Session (May/November)*

**Multivariate Tests[a]**

| Effect | | Value | F | Hypothesis df | Error df | Sig. | Partial Eta Squared |
|---|---|---|---|---|---|---|---|
| time | Pillai's Trace | .077 | 5.266[b] | 1.000 | 63.000 | .025 | .077 |
| | Wilks' Lambda | .923 | 5.266[b] | 1.000 | 63.000 | .025 | .077 |
| | Hotelling's Trace | .084 | 5.266[b] | 1.000 | 63.000 | .025 | .077 |
| | Roy's Largest Root | .084 | 5.266[b] | 1.000 | 63.000 | .025 | .077 |
| time * Session | Pillai's Trace | .082 | 5.634[b] | 1.000 | 63.000 | .021 | .082 |
| | Wilks' Lambda | .918 | 5.634[b] | 1.000 | 63.000 | .021 | .082 |
| | Hotelling's Trace | .089 | 5.634[b] | 1.000 | 63.000 | .021 | .082 |
| | Roy's Largest Root | .089 | 5.634[b] | 1.000 | 63.000 | .021 | .082 |

a. Design: Intercept + Session
 Within Subjects Design: time

b. Exact statistic

**Tests of Between-Subjects Effects**

Measure: MEASURE_1

Transformed Variable: Average

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. | Partial Eta Squared |
|---|---|---|---|---|---|---|
| Intercept | 2717.918 | 1 | 2717.918 | 2481.968 | .000 | .975 |
| Session | 1.804 | 1 | 1.804 | 1.648 | .204 | .025 |
| Error | 68.989 | 63 | 1.095 | | | |

## Scale 3: Personal Intercultural Confidence and Identity

*Mixed Between-Within Subjects ANOVA: Arts-Option (Yes/No)*

**Multivariate Tests[a]**

| Effect | | Value | F | Hypothesis df | Error df | Sig. | Partial Eta Squared |
|---|---|---|---|---|---|---|---|
| time | Pillai's Trace | .012 | .782[b] | 1.000 | 63.000 | .380 | .012 |
| | Wilks' Lambda | .988 | .782[b] | 1.000 | 63.000 | .380 | .012 |
| | Hotelling's Trace | .012 | .782[b] | 1.000 | 63.000 | .380 | .012 |
| | Roy's Largest Root | .012 | .782[b] | 1.000 | 63.000 | .380 | .012 |
| time * A.Artsyesno | Pillai's Trace | .000 | .015[b] | 1.000 | 63.000 | .903 | .000 |
| | Wilks' Lambda | 1.000 | .015[b] | 1.000 | 63.000 | .903 | .000 |
| | Hotelling's Trace | .000 | .015[b] | 1.000 | 63.000 | .903 | .000 |
| | Roy's Largest Root | .000 | .015[b] | 1.000 | 63.000 | .903 | .000 |

a. Design: Intercept + A.Artsyesno
 Within Subjects Design: time

b. Exact statistic

**Tests of Between-Subjects Effects**

Measure:  MEASURE_1

Transformed Variable:  Average

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. | Partial Eta Squared |
|---|---|---|---|---|---|---|
| Intercept | 2794.080 | 1 | 2794.080 | 4656.844 | .000 | .987 |
| A.Artsyesno | .830 | 1 | .830 | 1.384 | .244 | .021 |
| Error | 37.800 | 63 | .600 | | | |

## Scale 4: Effective Intercultural Communication

*Mixed Between-Within Subjects ANOVA: Arts-Option (Yes/No)*

**Multivariate Tests[a]**

| Effect | | Value | F | Hypothesis df | Error df | Sig. | Partial Eta Squared |
|---|---|---|---|---|---|---|---|
| time | Pillai's Trace | .076 | 5.211[b] | 1.000 | 63.000 | .026 | .076 |
| | Wilks' Lambda | .924 | 5.211[b] | 1.000 | 63.000 | .026 | .076 |
| | Hotelling's Trace | .083 | 5.211[b] | 1.000 | 63.000 | .026 | .076 |
| | Roy's Largest Root | .083 | 5.211[b] | 1.000 | 63.000 | .026 | .076 |
| time * A.Artsyesno | Pillai's Trace | .059 | 3.956[b] | 1.000 | 63.000 | .051 | .059 |
| | Wilks' Lambda | .941 | 3.956[b] | 1.000 | 63.000 | .051 | .059 |
| | Hotelling's Trace | .063 | 3.956[b] | 1.000 | 63.000 | .051 | .059 |
| | Roy's Largest Root | .063 | 3.956[b] | 1.000 | 63.000 | .051 | .059 |

a. Design: Intercept + A.Artsyesno
 Within Subjects Design: time
b. Exact statistic

**Tests of Between-Subjects Effects**

Measure:  MEASURE_1
Transformed Variable:  Average

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. | Partial Eta Squared |
|---|---|---|---|---|---|---|
| Intercept | 1962.295 | 1 | 1962.295 | 1454.408 | .000 | .958 |
| A.Artsyesno | .382 | 1 | .382 | .283 | .597 | .004 |
| Error | 85.000 | 63 | 1.349 | | | |

*One-Way ANCOVA: Arts-Option (Yes/No)*

**Tests of Between-Subjects Effects**

Dependent Variable:  Mean2_B2_Communication

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. | Partial Eta Squared |
|---|---|---|---|---|---|---|
| Corrected Model | 15.110[a] | 2 | 7.555 | 13.795 | .000 | .308 |
| Intercept | 22.697 | 1 | 22.697 | 41.444 | .000 | .401 |
| Mean2_A2_Communication | 13.288 | 1 | 13.288 | 24.264 | .000 | .281 |
| A.Artsyesno | 2.444 | 1 | 2.444 | 4.463 | .039 | .067 |
| Error | 33.954 | 62 | .548 | | | |
| Total | 1105.125 | 65 | | | | |
| Corrected Total | 49.063 | 64 | | | | |

a. R Squared = .308 (Adjusted R Squared = .286)

# Scale 5: Intercultural Open-mindedness

## Mixed Between-Within Subjects ANOVA: Arts-Option (Yes/No)

**Multivariate Tests[a]**

| Effect | | Value | F | Hypothesis df | Error df | Sig. | Partial Eta Squared |
|---|---|---|---|---|---|---|---|
| time | Pillai's Trace | .008 | .533[b] | 1.000 | 63.000 | .468 | .008 |
| | Wilks' Lambda | .992 | .533[b] | 1.000 | 63.000 | .468 | .008 |
| | Hotelling's Trace | .008 | .533[b] | 1.000 | 63.000 | .468 | .008 |
| | Roy's Largest Root | .008 | .533[b] | 1.000 | 63.000 | .468 | .008 |
| time * A.Artsyesno | Pillai's Trace | .006 | .405[b] | 1.000 | 63.000 | .527 | .006 |
| | Wilks' Lambda | .994 | .405[b] | 1.000 | 63.000 | .527 | .006 |
| | Hotelling's Trace | .006 | .405[b] | 1.000 | 63.000 | .527 | .006 |
| | Roy's Largest Root | .006 | .405[b] | 1.000 | 63.000 | .527 | .006 |

a. Design: Intercept + A.Artsyesno
 Within Subjects Design: time

b. Exact statistic

**Tests of Between-Subjects Effects**

Measure:  MEASURE_1
Transformed Variable:  Average

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. | Partial Eta Squared |
|---|---|---|---|---|---|---|
| Intercept | 2920.758 | 1 | 2920.758 | 4468.277 | .000 | .986 |
| A.Artsyesno | .258 | 1 | .258 | .395 | .532 | .006 |
| Error | 41.181 | 63 | .654 | | | |

## One-Way ANCOVA: Arts-Option (Yes/No)

**Tests of Between-Subjects Effects**

Dependent Variable:  Mean2_B2_Open-mindedness

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. | Partial Eta Squared |
|---|---|---|---|---|---|---|
| Corrected Model | 8.667[a] | 2 | 4.334 | 17.378 | .000 | .359 |
| Intercept | 5.464 | 1 | 5.464 | 21.911 | .000 | .261 |
| Mean2_A2_Open-mindedness | 8.636 | 1 | 8.636 | 34.632 | .000 | .358 |
| A.Artsyesno | .016 | 1 | .016 | .064 | .801 | .001 |
| Error | 15.461 | 62 | .249 | | | |
| Total | 1531.344 | 65 | | | | |
| Corrected Total | 24.128 | 64 | | | | |

a. R Squared = .359 (Adjusted R Squared = .339)

## One-Way ANCOVA: Prior IB (Yes/No)

**Tests of Between-Subjects Effects**

Dependent Variable:  Mean2_B2_Open-mindedness

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. | Partial Eta Squared |
|---|---|---|---|---|---|---|
| Corrected Model | 10.164[a] | 2 | 5.082 | 22.565 | .000 | .421 |
| Intercept | 6.148 | 1 | 6.148 | 27.296 | .000 | .306 |
| Mean2_A2_Open-mindedness | 8.217 | 1 | 8.217 | 36.485 | .000 | .370 |
| PriorIB | 1.513 | 1 | 1.513 | 6.718 | .012 | .098 |
| Error | 13.964 | 62 | .225 | | | |
| Total | 1531.344 | 65 | | | | |
| Corrected Total | 24.128 | 64 | | | | |

a. R Squared = .421 (Adjusted R Squared = .403)

## Scale 6: Intercultural Empathy

### Mixed Between-Within Subjects ANOVA: Arts-Option (Yes/No)

**Multivariate Tests[a]**

| Effect | | Value | F | Hypothesis df | Error df | Sig. | Partial Eta Squared |
|---|---|---|---|---|---|---|---|
| time | Pillai's Trace | .003 | .181[b] | 1.000 | 63.000 | .672 | .003 |
| | Wilks' Lambda | .997 | .181[b] | 1.000 | 63.000 | .672 | .003 |
| | Hotelling's Trace | .003 | .181[b] | 1.000 | 63.000 | .672 | .003 |
| | Roy's Largest Root | .003 | .181[b] | 1.000 | 63.000 | .672 | .003 |
| time * A.Artsyesno | Pillai's Trace | .020 | 1.282[b] | 1.000 | 63.000 | .262 | .020 |
| | Wilks' Lambda | .980 | 1.282[b] | 1.000 | 63.000 | .262 | .020 |
| | Hotelling's Trace | .020 | 1.282[b] | 1.000 | 63.000 | .262 | .020 |
| | Roy's Largest Root | .020 | 1.282[b] | 1.000 | 63.000 | .262 | .020 |

a. Design: Intercept + A.Artsyesno
 Within Subjects Design: time

b. Exact statistic

**Tests of Between-Subjects Effects**

Measure:  MEASURE_1

Transformed Variable:  Average

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. | Partial Eta Squared |
|---|---|---|---|---|---|---|
| Intercept | 1995.204 | 1 | 1995.204 | 2181.866 | .000 | .972 |
| A.Artsyesno | .218 | 1 | .218 | .238 | .627 | .004 |
| Error | 57.610 | 63 | .914 | | | |

## Scale 7: Global Engagement and Social Responsibility

### Mixed Between-Within Subjects ANOVA: Arts-Option (Yes/No)

**Multivariate Tests[a]**

| Effect | | Value | F | Hypothesis df | Error df | Sig. | Partial Eta Squared |
|---|---|---|---|---|---|---|---|
| time | Pillai's Trace | .140 | 10.276[b] | 1.000 | 63.000 | .002 | .140 |
| | Wilks' Lambda | .860 | 10.276[b] | 1.000 | 63.000 | .002 | .140 |
| | Hotelling's Trace | .163 | 10.276[b] | 1.000 | 63.000 | .002 | .140 |
| | Roy's Largest Root | .163 | 10.276[b] | 1.000 | 63.000 | .002 | .140 |
| time * A.Artsyesno | Pillai's Trace | .010 | .620[b] | 1.000 | 63.000 | .434 | .010 |
| | Wilks' Lambda | .990 | .620[b] | 1.000 | 63.000 | .434 | .010 |
| | Hotelling's Trace | .010 | .620[b] | 1.000 | 63.000 | .434 | .010 |
| | Roy's Largest Root | .010 | .620[b] | 1.000 | 63.000 | .434 | .010 |

a. Design: Intercept + A.Artsyesno
 Within Subjects Design: time
b. Exact statistic

**Tests of Between-Subjects Effects**

Measure:  MEASURE_1
Transformed Variable:  Average

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. | Partial Eta Squared |
|---|---|---|---|---|---|---|
| Intercept | 2054.631 | 1 | 2054.631 | 2814.687 | .000 | .978 |
| A.Artsyesno | .000 | 1 | .000 | .000 | .993 | .000 |
| Error | 45.988 | 63 | .730 | | | |

### One-Way ANCOVA: Arts-Option (Yes/No)

**Tests of Between-Subjects Effects**

Dependent Variable:  Mean2_B2_Action

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. | Partial Eta Squared |
|---|---|---|---|---|---|---|
| Corrected Model | 8.717[a] | 2 | 4.358 | 13.771 | .000 | .308 |
| Intercept | 8.692 | 1 | 8.692 | 27.464 | .000 | .307 |
| Mean2_A2_Action | 8.654 | 1 | 8.654 | 27.344 | .000 | .306 |
| A.Artsyesno | .150 | 1 | .150 | .474 | .494 | .008 |
| Error | 19.623 | 62 | .317 | | | |
| Total | 1147.111 | 65 | | | | |
| Corrected Total | 28.340 | 64 | | | | |

a. R Squared = .308 (Adjusted R Squared = .285)

# Appendix 9: Overview of Themes by Learner Profile Attribute

The tables below provide an overview of the themes for each LPA (left column), which originated from IB documentation, along with a short description of how this theme is evidenced or demonstrated (right column). This is followed by an overview of additional themes emerging from student responses, which are also presented with a short description.

## *Knowledgeable*

*Table 43: Overview of existing themes for the LPA 'knowledgeable'*

| Theme | Evidence or demonstration of … |
|---|---|
| [K1] **Conceptual knowledge** | • conceptual knowledge and understanding |
| [K2] **Contextual knowledge** | • knowledge and understanding across a range of disciplines, languages and cultures |
| [K3] **Local and/or global knowledge** | • knowledge and understanding of and engagement with local and/or global issues |
| [K4] **Understanding towards a peaceful and sustainable world** | • knowledge and understanding of how to initiate change *"[...] towards a more peaceful and sustainable world"* (IB, 2019a:2) |
| [K5] **Understanding of global responsibility** | • understanding of personal/human responsibility for the world and its resources |

*Table 44: Overview of additional themes for the LPA 'knowledgeable'*

| Theme | Evidence or demonstration of … |
|---|---|
| [K6] **Personal truth of (perceived) global relevance** | • personal truths or meanings (i.e. knowledge and understanding) being perceived and presented as matters or issues of global relevance or as 'universal truths' (may or may not be accurate) |
| [K7] **Imparting or sharing knowledge** | • the use of knowledge in basic or functional settings, mainly to 'enlighten' others or to achieve a (sometimes personal) purpose or goal<br>• sharing cultural knowledge with another person for the improvement of their intercultural understanding) |
| [K8] **Relating (to others) through knowledge** | • the use of knowledge for the purpose of effective engagements, connections, and interactions with others<br>• knowledge exchange to improve relationships<br>• knowledge exchange to increase one's intercultural understanding |
| [K9] **Mediating through/with knowledge** | • the use of knowledge and understanding in cross-cultural situations to collaborate with, mediate between, support or defend others |

## Open-minded

*Table 45: Overview of existing themes for the LPA 'open-minded'*

| Theme | Evidence or demonstration of … |
|---|---|
| [O1] **Appreciation of heritage and identity** | • critical appreciation of, reflection on, and respect for diverse cultures, histories, traditions, and identities |
| [O2] **Curiosity for different perspectives and beliefs** | • curiosity for and appreciation of different perspectives, beliefs, values, and experiences |
| [O3] **Grow from experience** | • willingness to learn and grow from the experience |

*Table 46: Overview of additional themes for the LPA 'open-minded'*

| Theme | Evidence or demonstration of … |
|---|---|
| [O4] **Willingness to adapt** | • willingness to adapt to situations or transform one's views, ways or behaviours |

## Communicator

*Table 47: Overview of existing themes for the LPA 'communicator'*

| Theme | Evidence or demonstration of … |
|---|---|
| [C1] **Multilingual communication** | • confident and/or creative use of multiple languages |
| [C2] **Multimodal communication** | • confident and/or creative use of multiple forms or modes of communication |
| [C3] **Listening and appreciation** | • listen to or recognize and appreciate diverse perspectives, beliefs, values, cultures, or experiences |
| [C4] **Collaboration** | • effective collaboration including "*across cultures and disciplines*" (IB, 2019a: 2) |

## Inquirer, Thinker, Reflective

*Table 48: Overview of existing themes for the LPA 'inquirer'*

| Theme | Evidence or demonstration of … |
|---|---|
| [I1] **Cultivate curiosity** | • the desire or devotion to know and to find out (about things) |
| [I2] **Research skills** | • the development and use of inquiry and research skills |
| [I3] **Learning skills** | • independent and collaborative learning skills |
| [I4] **Sustained and life-long learning** | • enthusiastic, sustained and life-long learning |

*Table 49: Overview of existing themes for the LPA 'thinker'*

| Theme | Evidence or demonstration of … |
|---|---|
| [T1] **Critical and creative thinking and problem-solving** | • the use of use "*critical and creative thinking skills*" (IB, 2019a: 3)<br>• the analysis and examination of intricate problems<br>• effective responses and responsible actions to problems or issues |
| [T2] **Informed and ethical decision-making** | • (taking) the "*initiative in making reasoned, ethical decisions*" (IB, 2019a: 3) |

*Table 50: Overview of additional themes for the LPA 'thinker'*

| Theme | Evidence or demonstration of … |
|---|---|
| [T3] **Broad thinking** | • thinking across cultures and contexts<br>• considerations beyond momentary confinements, situations, or perspectives (IB, 2019a) |
| [T4] **Deep thinking** | • backing up one's reasoning with relevant evidence<br>• effectively discussing, arguing, or counter arguing a topic, for example a local or global issue or a political situation, in an informed and knowledgeable manner |
| [T5] **Power and privilege** | • an awareness and examination of power and privilege (IB, 2019a) |

*Table 51: Overview of existing themes for the LPA 'reflective'*

| Theme | Evidence or demonstration of … |
|---|---|
| [R1] **Consideration of interconnectedness** | • being able to situate oneself and one's thinking into context and as connected to the wider world |
| [R2] **Personal development** | • the ability to identify areas for development and areas of strength in order to develop and refine one's personality |

*Table 52: Overview of additional themes for the LPA 'reflective'*

| Theme | Evidence or demonstration of … |
|---|---|
| [R3] **Perspective-taking** | • reflecting on and taking into consideration diverse perspectives, views, opinions, beliefs, values, cultures, identities, experiences of oneself and others (IB, 2019a) |
| [R4] **Flexibility** | • thinking about, considering and re-evaluating how to respond to a cross-cultural situation<br>• striving to communicate respectfully in a cross-cultural situation<br>• adjusting interactions based on continuous observation in a cross-cultural situation |

## Caring and Principled

*Table 53: Overview of existing themes for the LPA 'caring'*

| Theme | Evidence or demonstration of … |
|---|---|
| [E1] **Compassion** | • "*empathy, compassion and respect*" towards others (IB, 2019a: 3) |
| [E2] **Service** | • a desire or motivation to serve or volunteer |
| [E3] **Impact** | • actions to "*make a positive difference*" (IB, 2019a: 3) |

*Table 54: Overview of existing themes for the LPA 'principled'*

| Theme | Evidence or demonstration of … |
|---|---|
| [P1] **Integrity and honesty** | • acts and behaviours of integrity and honesty |
| [P2] **Fairness and justice** | • acts and behaviours of fairness and justice |
| [P3] **Respect for dignity and rights** | • acts and behaviours of respect for others' dignity and rights |
| [P4] **Responsibility** | • ownership of actions and consequences |

*Table 55: Overview of additional themes for LPAs 'caring' and 'principled'*

| Theme | Evidence or demonstration of … |
|---|---|
| [EP5] **Inclusiveness** | • acting inclusive and hospitable |
| [EP6] **Non-judgemental sensitivity** | • being non-judgemental or generally sensitive in cross-cultural situations<br>• helping others to appreciate differences or different perspectives and views |
| [EP7] **Relating and connecting** | • connecting to and with others through gestures of compassion or empathy, listening, talking, or relating to others |
| [EP8] **Concern and regard** | • acceptance, regard, and appreciation of others' choices, principles, habits, and cultural perspectives |
| [EP9] **Vulnerability and identity** | • making oneself vulnerable by sharing about one's feelings, background or culture<br>• demonstrating passion and care about one's own background and identity in order to engage with others in a cross-cultural situation<br>• stepping out of one's comfort-zone<br>• respecting or accepting and effectively managing or handling other's opinion about or reaction to oneself<br>• adjusting to someone else's needs or to the demands of a cross-cultural situation |

## Risk-taker

| Theme | Evidence or demonstration of … |
|---|---|
| [A1] **Courage and determination** | • a courageous and determined approach to a challenge or situation where the outcomes may be uncertain |
| [A2] **Innovation** | • taking new and innovative approaches in response to challenging situations |
| [A3] **Resourcefulness and resilience** | • effective independent work and collaboration<br>• imaginative use of resource |
| [A4] **Problem-solving** | • resolving issues and problems by looking at these from different perspectives and employing alternative solutions |

*Table 57: Overview of additional themes for LPA 'risk-taker'*

| Theme | Evidence or demonstration of … |
|---|---|
| [A5] **Participate** | • participation in organised events and/or activities or clubs |
| [A6] **Take a stand** | • standing up for others, oneself or something (e.g. the environment)<br>• facing bullies<br>• stopping racist speech or remarks |
| [A7] **Reason, de-escalate, mediate** | • reasoning with or educate others in the light of misconceptions<br>• mediating between people, and<br>• de-escalating situations or arguments |
| [A8] **Serve** | • serving or helping others, including hosting, volunteering, and supporting |
| [A9] **Support** | • supporting a cause, demonstrating mindfulness or being proactive regarding a global campaign or an environmental issue |

## Balanced

*Table 58: Overview of existing themes for the LPA 'balanced'*

| Theme | Evidence or demonstration of … |
|---|---|
| [B1] **Life balance** | • ability to balance the diverse demands along with recreational and health-related elements of life<br>• concern for well-being of self and others |
| [B2] **Interdependence with people** | • awareness, understanding and appreciation of interdependence with others |
| [B3] **Interconnectedness with the world** | • awareness, understanding and appreciation of interconnectedness with world events<br>• awareness, understanding and appreciation of interconnectedness with and responsibility for the environment and the planet |

# Appendix 10: Response Categories

## Overview of Response Categories across LPAs

The table below offers an overview of response categories with the descriptive title of each category and a summary for each response type across LPAs.

*Table 59: Overview of response categories across LPAs*

| Cat | Knowledgeable | Open-minded | Communicator | Critical Thinking | Caring/ Principled | Risk-taker |
|-----|---------------|-------------|--------------|-------------------|--------------------|------------|
| 0 | Not enough information, not possible to place | | | | | |
| 1 | **Rejection and prejudice** | | | | | |
| | Negative response, rejection, categorical rejection (e.g. no, I do not, no there are not, not really, I don't care) | | | | | |
| 2 | **Implicit rejection and self-focus** | | | | | |
| | Stereotyping, subjective, opinionated, major misconceptions | Subjective, self-centered, stereotyping, subjective, opinionated, unidirectional, (sometimes evidence of prejudice) | Unidirectional, monolingual, monomodal, (misunderstandings) | Stereotyping, unidirectional, limited inquiry or reflection implicit/passive rejection | Self-centred, 'us versus them' mentality | Self-serving, preoccupied with one's own interests |
| 3 | **Functional and observational** **(passive acknowledgement or observation of the other/of diversity)** | | | | | |
| | Situational, elevation of personal knowledge, minor misconceptions possible | Observational (passive), passive acceptance, (willingly) accepting norms of respect, acknowledgement of other views | Functional, superficial, purpose is to 'make oneself understood' | Functional, generalisations, thinking or reflecting on functional or superficial cultural aspects (food, clothes, habits) | Passive empathy, empathic behaviour related to own cultural conventions or experiences | Follower, tag onto existing initiatives with moderate effort or risk |

(Table 59 continued)

| Cat | Knowledgeable | Open-minded | Communi-cator | Critical Thinking | Caring/ Principled | Risk-taker |
|---|---|---|---|---|---|---|
| 4 | **Proactive engagement and interaction** | | | | | |
| | Simplified understanding of increasingly complex local and global issues, increasing awareness of interconnec-tedness of oneself with others and the world | Proactive engagement with diverse perspectives, proactive acceptance, appreciation, interaction | Contextual: multi-directional, interactive, multilingual, multimodal communi-cation | Critical engagement or interaction with sources, local and global issues and ideas, topcis, information, etc. | Compassion, proactive sympathy, time investment, interactive | Taking action (often sustained, repeated or ongoing), taking (some) initiative |
| 5 | **Transcendental (and transformational** (Johnson, 2019)**)** | | | | | |
| | Complex and nuanced conceptual knowledge and understanding, awareness of interconnected-ness | Curiosity appreciation and embracing of diversity | Refined, nuanced, conceptual and abstract communi-cation (multilingual and multimodal) | (Deep) realisation and considerations of interconnec-tedness and interdepen-dence | (Deep) realisation and considerations of interconnected-ness and interdependence | Leadership and innovation |

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## Example of Themes across Categories

The following table shows the differences in student examples for the same LPA theme across response categories.

*Table 60: Demonstration of the different roles of themes and characteristics*

| Category | Functional and observational | Proactive and interactive | Transcendental and transformational |
|---|---|---|---|
| Example characteristics | simplistic, passive, removed | connecting, engagement, perspective-taking | adaptation, refinement, immersion, navigating complexities |
| Example 1 | | | |
| Theme | [K1] Conceptual knowledge and understanding (LPA: Knowledgeable) | | |
| Example student response | *"Teachers talking about a subject of the past, explaining clearer the reasons why that happ[e]ned."* | *"In my seminar history class we had debates about race and [I] acted knowledgeable by listening & understanding our cultural differences."* | *"[...] I went to a college program experience [...] I had the opportunity to talk and relate with people from more than 15 countries and we had the chance to discuss and debate with respect, each countries problems. [...] I think I learned a lot in this programs [sic], mainly because knowing different cultures, lenguajes [sic] and people, made me develop much more as a person. Although, at the beginning it was challenging to talk freely with each person, this was mainly because everyone has a different culture and think different [sic]. [...] I realized that, countries may be far away, but love and happiness, make [...] [us] feel very close."* |
| Example 2 | | | |
| Theme | [O1] Appreciation of heritage and identity (LPA: Open-minded) | | |
| Example student response | *"When other people from different culture talk about their lifestyle, I accepted [it] as it is. I didn't find it weird or anything."* | *"Many of my close friends are from different cultures. Every time I talk to them or their family members about their culture I am always very open minded and eager to learn about a new culture."* | *"[...] every time my parents told me we were moving to another country, I used to feel sad, because I had to live [sic] my friends, school and sometimes family. But growing up, I changed my mentality, and started thinking in another way, I looked at it as a new opportunity to meet new friends, know a new culture and get out of my comfort zone. Now I consider myself very open minded and to have enough experience to be able to adapt to any culture."* |

# Appendix 11: Descriptive Analysis: Categories

## Knowledgeable

*Table 61: 'Knowledgeable' – Overall responses and Candidate status*

|  | Overall responses | | Diploma candidates | | Certificate candidates | | Unknown candidate status | |
|---|---|---|---|---|---|---|---|---|
|  | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* |
| N | 117 | 59 | 96 | 53 | 14 | 6 | 7 | 0 |
| Mean | 3.53 | 3.95 | 3.58 | 3.98 | 3.50 | 3.67 | 2.86 | |
| Median | 4.00 | 4.00 | 4.00 | 4.00 | 3.50 | 4.00 | 3.00 | |
| Mode | 4 | 4 | 4 | 4 | 3 | 4 | 3 | |
| Std. Deviation | .886 | .655 | .816 | .665 | 1.160 | .516 | 1.069 | |
| Variance | .786 | .428 | .667 | .442 | 1.346 | .267 | 1.143 | |
| Range | 4 | 2 | 4 | 2 | 4 | 1 | 3 | |
| Minimum | 1 | 3 | 1 | 3 | 1 | 3 | 1 | |
| Maximum | 5 | 5 | 5 | 5 | 5 | 4 | 4 | |

*Table 62: 'Knowledgeable' – Overall responses: Relative frequency of responses per category (in percent)*

| *Overall responses* | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| *Pre-test (117)* | 2.6 | 6.8 | 37.6 | 41.0 | 12.0 |
| *Post-test (59)* | 0 | 0 | 23.7 | 57.6 | 18.6 |

*Table 63: 'Knowledgeable' – Prior IB and School type*

|  | Prior IB | | No prior IB | | Prior IB unknown | | School type private | | School type state/public | | School type unknown | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* |
| N | 38 | 22 | 63 | 32 | 16 | 5 | 98 | 45 | 18 | 14 | 1 | 0 |
| Mean | 3.68 | 3.95 | 3.35 | 3.91 | 3.88 | 4.20 | 3.60 | 3.96 | 3.06 | 3.93 | 5.00 | |
| Median | 4.00 | 4.00 | 3.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 3.00 | 4.00 | 5.00 | |
| Mode | 4 | 4 | 3 | 4 | 3* | 4 | 4 | 4 | 3* | 4 | 5 | |
| Std. Deviation | .809 | .653 | .919 | .689 | .806 | .447 | .834 | .673 | .998 | .616 | | |
| Variance | .654 | .426 | .844 | .475 | .650 | .200 | .696 | .453 | .997 | .379 | 5 | |
| Range | 4 | 2 | 4 | 2 | 2 | 1 | 4 | 2 | 3 | 2 | 0 | |
| Minimum | 1 | 3 | 1 | 3 | 3 | 4 | 1 | 3 | 1 | 3 | 5 | |
| Maximum | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 5 | 5 | |

*Multiple modes exist. The smallest value is shown here.

*Table 64: 'Knowledgeable' – Cultural background and Gender*

| | Cultural background: diverse | | Cultural background: monocultural | | Cultural background: unknown | | Gender: female | | Gender: male | | Gender: unknown | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* |
| N | 75 | 31 | 37 | 28 | 5 | 0 | 67 | 39 | 48 | 20 | 2 | 0 |
| Mean | 3.61 | 3.90 | 3.46 | 4.00 | 2.80 | | 3.46 | 4.03 | 3.58 | 3.80 | 4.50 | |
| Median | 4.00 | 4.00 | 3.00 | 4.00 | 3.00 | | 4.00 | 4.00 | 4.00 | 4.00 | 4.50 | |
| Mode | 4 | 4 | 3 | 4 | 1 | | 4 | 4 | 4 | 4 | 4* | |
| Std. Deviation | .804 | .700 | .869 | .609 | 1.789 | | .841 | .668 | .942 | .616 | .707 | |
| Variance | .646 | .490 | .755 | .370 | 3.200 | | .707 | .447 | .887 | .379 | .500 | |
| Range | 4 | 2 | 3 | 2 | 4 | | 4 | 2 | 4 | 2 | 1 | |
| Minimum | 1 | 3 | 2 | 3 | 1 | | 1 | 3 | 1 | 3 | 4 | |
| Maximum | 5 | 5 | 5 | 5 | 5 | | 5 | 5 | 5 | 5 | 5 | |

*Multiple modes exist. The smallest value is shown here.

*Table 65: 'Knowledgeable' – Arts versus No Arts*

| | DP Arts | | DP Non-Arts | | Prior Arts | | No prior Arts | | Arts outside DP | | No Arts outside DP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* |
| N | 61 | 28 | 56 | 31 | 92 | 43 | 24 | 16 | 62 | 38 | 55 | 21 |
| Mean | 3.41 | 3.96 | 3.66 | 3.94 | 3.49 | 4.00 | 3.63 | 3.81 | 3.50 | 4.08 | 3.56 | 3.71 |
| Median | 3.00 | 4.00 | 4.00 | 4.00 | 3.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| Mode | 3 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Std. Deviation | .844 | .576 | .920 | .727 | .819 | .655 | 1.096 | .655 | .937 | .673 | .834 | .561 |
| Variance | .713 | .332 | .846 | .529 | .670 | .429 | 1.201 | .429 | .877 | .453 | .695 | .314 |
| Range | 4 | 2 | 4 | 2 | 4 | 2 | 4 | 2 | 4 | 2 | 4 | 2 |
| Minimum | 1 | 3 | 1 | 3 | 1 | 3 | 1 | 3 | 1 | 3 | 1 | 3 |
| Maximum | 5 | 5 | 5 | 5 | 5 | 4 | 5 | 4 | 5 | 5 | 5 | 5 |

*Note: One unknown student in Prior Arts versus No prior Arts not reported here

## Open-minded

*Table 66: 'Open-minded' – Overall responses and Candidate status*

|                | Overall responses | | Diploma candidates | | Certificate candidates | | Unknown candidate status | |
|----------------|----------|-----------|----------|-----------|----------|-----------|----------|-----------|
|                | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* |
| N              | 143      | 67        | 115      | 58        | 20       | 9         | 8        | 0         |
| Mean           | 3.59     | 3.66      | 3.66     | 3.72      | 3.45     | 3.22      | 2.88     |           |
| Median         | 4.00     | 4.00      | 4.00     | 4.00      | 3.50     | 3.00      | 3.00     |           |
| Mode           | 3        | 4         | 4        | 4         | 3*       | 3         | 3        |           |
| Std. Deviation | .754     | .729      | .687     | .744      | .945     | .441      | .835     |           |
| Variance       | .568     | .532      | .472     | .554      | .892     | .194      | .696     |           |
| Range          | 4        | 3         | 3        | 3         | 4        | 1         | 3        |           |
| Minimum        | 1        | 2         | 2        | 2         | 1        | 3         | 1        |           |
| Maximum        | 5        | 5         | 5        | 5         | 5        | 4         | 4        |           |

*Multiple modes exist. The smallest value is shown here.

*Table 67: 'Open-minded' – Overall responses: Relative frequency of responses per category (in percent)*

| Overall responses | 1 | 2 | 3 | 4 | 5 |
|----------------|-----|-----|------|------|------|
| *Pre-test (143)* | 1.4 | 1.4 | 44.8 | 42.0 | 10.5 |
| *Post-test (67)* | 0 | 6.0 | 31.3 | 53.7 | 9.0 |

*Table 68: 'Open-minded' – Prior IB and School type*

|                | Prior IB | | No prior IB | | Prior IB unknown | | School type private | | School type state/public | | School type unknown | |
|----------------|----------|-----------|----------|-----------|----------|-----------|----------|-----------|----------|-----------|----------|-----------|
|                | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* |
| N              | 48       | 20        | 76       | 42        | 19       | 5         | 122      | 48        | 20       | 18        | 1        | 1         |
| Mean           | 3.54     | 3.70      | 3.55     | 3.57      | 3.84     | 4.20      | 3.66     | 3.73      | 3.10     | 3.56      | 5.00     | 2.00      |
| Median         | 3.50     | 4.00      | 3.00     | 4.00      | 4.00     | 4.00      | 4.00     | 4.00      | 3.00     | 3.50      | 5.00     | 2.00      |
| Mode           | 3        | 4         | 3        | 4         | 4        | 4*        | 4        | 4         | 3        | 3         | 5        | 2         |
| Std. Deviation | .743     | .733      | .790     | .703      | .602     | .837      | .701     | .736      | .852     | .616      |          |           |
| Variance       | .551     | .537      | .624     | .495      | .363     | .700      | .492     | .542      | .726     | .379      |          |           |
| Range          | 4        | 3         | 4        | 3         | 2        | 2         | 3        | 3         | 3        | 2         | 0        | 0         |
| Minimum        | 1        | 2         | 1        | 2         | 3        | 3         | 2        | 2         | 1        | 3         | 5        | 2         |
| Maximum        | 5        | 5         | 5        | 5         | 5        | 5         | 5        | 5         | 4        | 5         | 5        | 2         |

*Multiple modes exist. The smallest value is shown here.

*Table 69: 'Open-minded' – Cultural background and Gender*

| | Cultural background: diverse | | Cultural background: monocultural | | Cultural background: unknown | | Gender: female | | Gender: male | | Gender: unknown | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* |
| N | 91 | 38 | 46 | 29 | 6 | 0 | 83 | 45 | 57 | 22 | 3 | 0 |
| Mean | 3.57 | 3.68 | 3.61 | 3.62 | 3.67 | | 3.55 | 3.76 | 3.60 | 3.45 | 4.33 | |
| Median | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | | 3.00 | 4.00 | 4.00 | 3.50 | 4.00 | |
| Mode | 3 | 4 | 3 | 4 | 4* | | 3 | 4 | 4 | 4 | 4 | |
| Std. Deviation | .717 | .775 | .714 | .677 | 1.506 | | .737 | .645 | .776 | .858 | .577 | |
| Variance | .514 | .600 | .510 | .458 | 2.267 | | .5437 | .416 | .602 | .736 | .333 | |
| Range | 4 | 3 | 3 | 3 | 4 | | 4 | 3 | 4 | 3 | 1 | |
| Minimum | 1 | 2 | 2 | 2 | 1 | | 1 | 2 | 1 | 2 | 4 | |
| Maximum | 5 | 5 | 5 | 5 | 5 | | 5 | 5 | 5 | 5 | 5 | |

*Multiple modes exist. The smallest value is shown here.

*Table 70: 'Open-minded' - Arts versus No Arts*

| | DP Arts | | DP Non-Arts | | Prior Arts | | No prior Arts | | Arts outside DP | | No Arts outside DP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* |
| N | 78 | 32 | 65 | 35 | 108 | 48 | 34 | 19 | 79 | 39 | 64 | 28 |
| Mean | 3.63 | 3.75 | 3.54 | 3.57 | 3.54 | 3.71 | 3.71 | 3.53 | 3.59 | 3.85 | 3.58 | 3.39 |
| Median | 4.00 | 4.00 | 4.00 | 4.00 | 3.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 3.00 |
| Mode | 3 | 4 | 3* | 4 | 3 | 4 | 4 | 4 | 3 | 4 | 4 | 3* |
| Std. Deviation | .667 | .803 | .849 | .655 | .689 | .683 | .906 | .841 | .743 | .670 | .773 | .737 |
| Variance | .444 | .645 | .721 | .429 | .475 | .466 | .820 | .708 | .552 | .449 | .597 | .544 |
| Range | 2 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 |
| Minimum | 3 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| Maximum | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |

*Multiple modes exist. The smallest value is shown here.
*Note: One unknown student in Prior Arts versus No prior Arts not reported here*

# Communicator (Forms of Communication)

*Table 71: 'Communicator' – Overall responses and Candidate status*

|  | Overall responses | | Diploma candidates | | Certificate candidates | | Unknown candidate status | |
|---|---|---|---|---|---|---|---|---|
|  | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* |
| N | 105 | 47 | 89 | 40 | 12 | 7 | 4 | 0 |
| Mean | 3.41 | 3.47 | 3.40 | 3.45 | 3.50 | 3.57 | 3.25 |  |
| Median | 3.00 | 3.00 | 3.00 | 3.00 | 3.50 | 3.00 | 3.00 |  |
| Mode | 3 | 3 | 3 | 3 | 3* | 3 | 3 |  |
| Std. Deviation | .661 | .718 | .686 | .714 | .522 | .787 | .500 |  |
| Variance | .436 | .515 | .471 | .510 | .273 | .619 | .250 |  |
| Range | 3 | 3 | 3 | 3 | 1 | 2 | 1 |  |
| Minimum | 2 | 2 | 2 | 2 | 3 | 3 | 3 |  |
| Maximum | 5 | 5 | 5 | 5 | 4 | 5 | 4 |  |

*Multiple modes exist. The smallest value is shown here.

*Table 72: 'Communicator' – Overall responses: Relative frequency of responses per category (in percent)*

| *Overall responses* | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| *Pre-test (105)* | 0 | 4.8 | 54.3 | 36.2 | 4.8 |
| *Post-test (47)* | 0 | 2.1 | 59.6 | 27.7 | 10.6 |

*Table 73: 'Communicator' – Prior IB and School type*

|  | Prior IB | | No prior IB | | Prior IB unknown | | School type private | | School type state/public | | School type unknown | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* |
| N | 31 | 12 | 60 | 30 | 14 | 5 | 94 | 34 | 10 | 13 | 1 |  |
| Mean | 3.29 | 3.50 | 3.47 | 3.40 | 3.43 | 3.80 | 3.43 | 3.38 | 3.30 | 3.69 | 3.00 |  |
| Median | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 4.00 | 3.00 | 3.00 | 3.00 | 4.00 | 3.00 |  |
| Mode | 3 | 3 | 3 | 3 | 3 | 3* | 3 | 3 | 3 | 3 | 3 |  |
| Std. Deviation | .643 | .798 | .650 | .675 | .756 | .837 | .664 | .697 | .675 | .751 |  |  |
| Variance | .413 | .636 | .423 | .455 | .571 | .700 | .441 | .486 | .456 | .564 |  |  |
| Range | 3 | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 2 | 0 |  |
| Minimum | 2 | 3 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 3 | 3 |  |
| Maximum | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 5 | 3 |  |

*Multiple modes exist. The smallest value is shown here.

*Table 74: 'Communicator' – Cultural background and Gender*

|  | Cultural background: diverse | | Cultural background: monocultural | | Cultural background: unknown | | Gender: female | | Gender: male | | Gender: unknown | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  | Pre-test | Post-test | Pre-test | Post-test | Pre-test | Post-test | Pre-test | Post-test | Pre-test | Post-test | Pre-test | Post-test |
| N | 62 | 26 | 39 | 21 | 4 | 0 | 58 | 31 | 45 | 16 | 2 | 0 |
| Mean | 3.45 | 3.31 | 3.38 | 3.67 | 3.00 | | 3.52 | 3.61 | 3.29 | 3.19 | 3.00 | |
| Median | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | | 3.00 | 4.00 | 3.00 | 3.00 | 3.00 | |
| Mode | 3 | 3 | 3 | 3 | 3 | | 3 | 3 | 3 | 3 | 3 | |
| Std. Deviation | .670 | .618 | .633 | .796 | .816 | | .731 | .761 | .549 | .544 | .000 | |
| Variance | .448 | .382 | .401 | .633 | .667 | | .535 | .578 | .301 | .296 | .000 | |
| Range | 3 | 3 | 3 | 2 | 2 | | 3 | 3 | 2 | 2 | 0 | |
| Minimum | 2 | 2 | 2 | 3 | 2 | | 2 | 2 | 2 | 3 | 3 | |
| Maximum | 5 | 5 | 5 | 5 | 4 | | 5 | 5 | 4 | 5 | 3 | |

*Table 75: 'Communicator' – Arts versus No Arts*

|  | DP Arts | | DP Non-Arts | | Prior Arts | | No prior Arts | | Arts outside DP | | No Arts outside DP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  | Pre-test | Post-test | Pre-test | Post-test | Pre-test | Post-test | Pre-test | Post-test | Pre-test | Post-test | Pre-test | Post-test |
| N | 54 | 21 | 51 | 26 | 83 | 36 | 21 | 11 | 52 | 32 | 53 | 15 |
| Mean | 3.46 | 3.52 | 3.35 | 3.42 | 3.46 | 3.42 | 3.24 | 3.64 | 3.56 | 3.47 | 3.26 | 3.47 |
| Median | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 4.00 | 3.00 | 3.00 | 3.00 |
| Mode | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3* | 3 | 3 | 3 |
| Std. Deviation | .636 | .814 | .688 | .643 | .650 | .692 | .700 | .809 | .752 | .718 | .524 | .743 |
| Variance | .404 | .662 | .473 | .414 | .422 | .479 | .490 | .655 | .565 | .515 | .275 | .552 |
| Range | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 2 |
| Minimum | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 3 |
| Maximum | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 5 |

*Multiple modes exist. The smallest value is shown here.
*Note: One unknown student in Prior Arts versus No prior Arts not reported here

## Inquirer, Thinker, Reflective (Critical Thinking)

*Table 76: Critical thinking – Overall responses and Candidate status*

| | Overall responses | | Diploma candidates | | Certificate candidates | | Unknown candidate status | |
|---|---|---|---|---|---|---|---|---|
| | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* |
| N | 90 | 45 | 74 | 39 | 13 | 5 | 3 | 0 |
| Mean | 3.71 | 3.84 | 3.76 | 3.92 | 3.46 | 3.20 | 3.67 | |
| Median | 4.00 | 4.00 | 4.00 | 4.00 | 3.00 | 3.00 | 4.00 | |
| Mode | 4 | 4 | 4 | 4 | 3 | 3 | 4 | |
| Std. Deviation | .768 | .680 | .755 | .664 | .877 | .447 | .577 | |
| Variance | .590 | .462 | .570 | .441 | .769 | .200 | .333 | |
| Range | 3 | 2 | 3 | 2 | 3 | 1 | 1 | |
| Minimum | 2 | 3 | 2 | 3 | 2 | 3 | 3 | |
| Maximum | 5 | 5 | 5 | 5 | 5 | 4 | 4 | |

*Table 77: Critical thinking – Overall responses: Relative frequency of responses per category (in percent)*

| Overall responses | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| *Pre-test (90)* | 0 | 4.4 | 34.4 | 46.7 | 14.4 |
| *Post-test (45)* | 0 | 0 | 31.1 | 53.3 | 15.6 |

*Table 78: Critical thinking – Prior IB and School type*

| | Prior IB | | No prior IB | | Prior IB unknown | | School type private | | School type state/public | | School type unknown | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* |
| N | 29 | 14 | 51 | 25 | 10 | 5 | 76 | 35 | 13 | 9 | 1 | 0 |
| Mean | 3.62 | 3.71 | 3.73 | 3.88 | 3.90 | 4.00 | 3.76 | 3.86 | 3.38 | 3.78 | 4.00 | |
| Median | 4.00 | 3.50 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 3.00 | 4.00 | 4.00 | |
| Mode | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | |
| Std. Deviation | .561 | .825 | .896 | .600 | .568 | .707 | .798 | .692 | .506 | .667 | | |
| Variance | .315 | .681 | .803 | .360 | .322 | .500 | .6361 | .476 | .256 | .400 | | |
| Range | 2 | 2 | 3 | 2 | 2 | 2 | 3 | 2 | 1 | 2 | 0 | |
| Minimum | 3 | 3 | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 4 | |
| Maximum | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 5 | 4 | |

*Table 79: Critical thinking – Cultural background and Gender*

| | Cultural background: diverse | | Cultural background: monocultural | | Cultural background: unknown | | Gender: female | | Gender: male | | Gender: unknown | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* |
| N | 59 | 23 | 29 | 21 | 2 | 0 | 52 | 26 | 35 | 18 | 3 | 0 |
| Mean | 3.71 | 3.96 | 3.66 | 3.71 | 4.50 | | 3.69 | 3.92 | 3.71 | 3.72 | 4.00 | |
| Median | 4.00 | 4.00 | 4.00 | 4.00 | 4.50 | | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | |
| Mode | 4 | 4 | 4 | 4 | 4* | | 4 | 4 | 4 | 4 | 3* | |
| Std. Deviation | .789 | .706 | .721 | .644 | .707 | | .755 | .688 | .789 | .669 | 1.000 | |
| Variance | .622 | .498 | .520 | .414 | .500 | | .570 | .474 | .622 | .448 | 1.000 | |
| Range | 3 | 2 | 3 | 2 | 1 | | 3 | 2 | 3 | 2 | 2 | |
| Minimum | 2 | 3 | 2 | 3 | 4 | | 2 | 3 | 2 | 3 | 3 | |
| Maximum | 5 | 5 | 5 | 5 | 5 | | 5 | 5 | 5 | 5 | 5 | |

*Multiple modes exist. The smallest value is shown here.

*Table 80: Critical thinking – Arts versus No Arts*

| | DP Arts | | DP Non-Arts | | Prior Arts | | No prior Arts | | Arts outside DP | | No Arts outside DP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* |
| N | 49 | 18 | 41 | 26 | 69 | 30 | 20 | 14 | 45 | 24 | 45 | 20 |
| Mean | 3.61 | 3.83 | 3.83 | 3.85 | 3.74 | 3.97 | 3.60 | 3.57 | 3.64 | 3.92 | 3.78 | 3.75 |
| Median | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 3.50 | 3.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| Mode | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 3 | 3 | 4 | 4 | 4 |
| Std. Deviation | .759 | .618 | .771 | .732 | .798 | .615 | .681 | .756 | .857 | .654 | .670 | .716 |
| Variance | .576 | .382 | .595 | .535 | .637 | .378 | .463 | .571 | .734 | .428 | .449 | .513 |
| Range | 3 | 2 | 3 | 2 | 3 | 2 | 2 | 2 | 3 | 2 | 3 | 2 |
| Minimum | 2 | 3 | 2 | 3 | 2 | 3 | 3 | 3 | 2 | 3 | 2 | 3 |
| Maximum | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |

*Multiple modes exist. The smallest value is shown here.
*Note: One unknown student in Prior Arts versus No prior Arts not reported here

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# Caring and Principled

*Table 81: 'Caring' and 'Principled' – Overall responses and Candidate status*

|  | Overall responses | | Diploma candidates | | Certificate candidates | | Unknown candidate status | |
|---|---|---|---|---|---|---|---|---|
|  | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* |
| N | 115 | 48 | 92 | 40 | 16 | 7 | 7 | 1 |
| Mean | 3.69 | 3.81 | 3.73 | 3.88 | 3.63 | 3.71 | 3.29 | 2.00 |
| Median | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 2.00 |
| Mode | 4 | 4 | 4 | 4 | 4 | 3* | 4 | 2 |
| Std. Deviation | .680 | .673 | .648 | .607 | .619 | .756 | 1.113 | |
| Variance | .463 | .453 | .420 | .369 | .383 | .571 | 1.238 | |
| Range | 4 | 3 | 3 | 2 | 2 | 5 | 3 | 0 |
| Minimum | 1 | 2 | 2 | 3 | 3 | 3 | 1 | 2 |
| Maximum | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 2 |

*Multiple modes exist. The smallest value is shown here.

*Table 82: 'Caring' and 'Principled' – Overall responses: Relative frequency of responses per category (in percent)*

| *Overall responses* | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| *Pre-test (115)* | .9 | 2.6 | 30.4 | 59.1 | 7.0 |
| *Post-test (48)* | 0 | 2.1 | 27.1 | 58.3 | 12.5 |

*Table 83: 'Caring' and 'Principled' – Prior IB and School type*

|  | Prior IB | | No prior IB | | Prior IB unknown | | School type private | | School type state/public | | School type unknown | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* |
| N | 43 | 19 | 55 | 24 | 17 | 5 | 94 | 38 | 20 | 10 | 1 | |
| Mean | 3.65 | 3.84 | 3.69 | 3.75 | 3.76 | 4.00 | 3.79 | 3.92 | 3.25 | 3.40 | 3.00 | |
| Median | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 3.00 | 3.00 | 3.00 | |
| Mode | 4 | 4 | 4 | 4 | 4 | 3* | 4 | 4 | 3 | 3 | 3 | |
| Std. Deviation | .686 | .602 | .717 | .676 | .562 | 1.000 | .620 | .587 | .786 | .843 | | |
| Variance | .471 | .363 | .514 | .457 | .316 | 1.000 | .384 | .345 | .618 | .711 | | |
| Range | 4 | 2 | 3 | 3 | 2 | 2 | 3 | 2 | 3 | 3 | 0 | |
| Minimum | 1 | 3 | 2 | 2 | 3 | 3 | 2 | 3 | 1 | 2 | 3 | |
| Maximum | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 5 | 3 | |

*Multiple modes exist. The smallest value is shown here.

| | Cultural background: diverse | | Cultural background: monocultural | | Cultural background: unknown | | Gender: female | | Gender: male | | Gender: unknown | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Pre-test | Post-test | Pre-test | Post-test | Pre-test | Post-test | Pre-test | Post-test | Pre-test | Post-test | Pre-test | Post-test |
| N | 72 | 34 | 38 | 14 | 5 | 0 | 64 | 29 | 48 | 19 | 3 | 0 |
| Mean | 3.82 | 3.74 | 3.58 | 4.00 | 2.60 | | 3.69 | 3.97 | 3.73 | 3.58 | 3.00 | |
| Median | 4.00 | 4.00 | 4.00 | 4.00 | 3.00 | | 4.00 | 4.00 | 4.00 | 4.00 | 3.00 | |
| Mode | 4 | 4 | 4 | 4 | 3 | | 4 | 4 | 4 | 4 | 3 | |
| Std. Deviation | .613 | .710 | .642 | .555 | .894 | | .664 | .626 | .707 | .692 | .000 | |
| Variance | .375 | .504 | .413 | .308 | .800 | | .440 | .392 | .500 | .480 | .000 | |
| Range | 3 | 3 | 3 | 2 | 2 | | 3 | 2 | 4 | 3 | 0 | |
| Minimum | 2 | 2 | 2 | 3 | 1 | | 2 | 3 | 1 | 2 | 3 | |
| Maximum | 5 | 5 | 5 | 5 | 3 | | 5 | 5 | 5 | 5 | 3 | |

Table 85: 'Caring' and 'Principled' – Arts versus No Arts

| | DP Arts | | DP Non-Arts | | Prior Arts | | No prior Arts | | Arts outside DP | | No Arts outside DP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Pre-test | Post-test | Pre-test | Post-test | Pre-test | Post-test | Pre-test | Post-test | Pre-test | Post-test | Pre-test | Post-test |
| N | 64 | 20 | 51 | 28 | 89 | 34 | 25 | 14 | 56 | 29 | 59 | 19 |
| Mean | 3.66 | 3.75 | 3.73 | 3.86 | 3.71 | 3.85 | 3.64 | 3.71 | 3.75 | 3.90 | 3.63 | 3.68 |
| Median | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| Mode | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Std. Deviation | .672 | .716 | .695 | .651 | .710 | .744 | .569 | .469 | .769 | .618 | .584 | .749 |
| Variance | .451 | .513 | .483 | .423 | .505 | .553 | .323 | .220 | .591 | .382 | .341 | .561 |
| Range | 3 | 3 | 4 | 2 | 4 | 3 | 2 | 1 | 4 | 2 | 3 | 3 |
| Minimum | 2 | 2 | 1 | 3 | 1 | 2 | 3 | 3 | 1 | 3 | 2 | 2 |
| Maximum | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 5 |

*Multiple modes exist. The smallest value is shown here.

*Note: One unknown student in Prior Arts versus No prior Arts not reported here

# Risk-taker (Willingness to Act)

*Table 86: 'Risk-taker' – Overall responses and Candidate status*

|  | Overall responses | | Diploma candidates | | Certificate candidates | | Unknown candidate status | |
|---|---|---|---|---|---|---|---|---|
|  | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* |
| N | 95 | 52 | 75 | 47 | 14 | 5 | 6 | 0 |
| Mean | 3.69 | 3.73 | 3.76 | 3.77 | 3.71 | 3.40 | 2.83 | |
| Median | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 3.00 | |
| Mode | 4 | 4 | 4 | 4 | 4 | 4 | 3 | |
| Std. Deviation | .685 | .795 | .633 | .698 | .825 | 1.517 | .408 | |
| Variance | .470 | 632 | .401 | .488 | .681 | 2.300 | .167 | |
| Range | 3 | 4 | 3 | 2 | 3 | 4 | 1 | |
| Minimum | 2 | 1 | 2 | 3 | 2 | 1 | 2 | |
| Maximum | 5 | 5 | 5 | 5 | 5 | 5 | 3 | |

*Multiple modes exist. The smallest value is shown here.

*Table 87: 'Risk-taker' – Overall responses: Relative frequency of responses per category (in percent)*

|  |  | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| **Overall** | *Pre-test (95)* | 0 | 4.5 | 30.5 | 56.8 | 8.4 |
|  | *Post-test (52)* | 1.9 | 0 | 36.5 | 46.2 | 15.4 |

*Table 88: 'Risk-taker' – Prior IB and School type*

|  | Prior IB | | No prior IB | | Prior IB unknown | | School type private | | School type state/public | | School type unknown | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* |
| N | 28 | 17 | 50 | 30 | 17 | 5 | 80 | 40 | 14 | 12 | 1 | 0 |
| Mean | 3.61 | 3.82 | 3.80 | 3.70 | 3.53 | 3.60 | 3.76 | 3.65 | 3.29 | 4.00 | 4.00 | |
| Median | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 3.00 | 4.00 | 4.00 | |
| Mode | 3* | 3 | 4 | 4 | 4 | 4 | 4 | 3* | 3 | 4 | 4 | |
| Std. Deviation | .737 | .809 | .639 | .837 | .717 | .548 | .601 | .662 | .994 | 1.128 | | |
| Variance | .544 | .654 | .408 | .700 | .515 | .300 | .361 | .438 | .989 | 1.279 | | |
| Range | 3 | 2 | 3 | 4 | 2 | 1 | 3 | 2 | 3 | 4 | 0 | |
| Minimum | 2 | 3 | 2 | 1 | 2 | 3 | 2 | 3 | 2 | 1 | 4 | |
| Maximum | 5 | 5 | 5 | 5 | 4 | 4 | 5 | 5 | 5 | 5 | 4 | |

*Multiple modes exist. The smallest value is shown here.

*Table 89: 'Risk-taker' – Cultural background and Gender*

| | Cultural background: diverse | | Cultural background: monocultural | | Cultural background: unknown | | Gender: female | | Gender: male | | Gender: unknown | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* |
| N | 60 | 26 | 32 | 25 | 3 | 1 | 50 | 36 | 42 | 16 | 3 | 0 |
| Mean | 3.70 | 3.69 | 3.66 | 3.80 | 4.00 | 3.00 | 3.72 | 3.72 | 3.62 | 3.75 | 4.33 | |
| Median | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 3.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | |
| Mode | 4 | 3* | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | |
| Std. Deviation | .743 | .928 | .602 | .645 | .000 | | .671 | .849 | .697 | .683 | .577 | |
| Variance | .553 | .862 | .362 | .417 | .000 | | .451 | .721 | .485 | .467 | .333 | |
| Range | 3 | 4 | 2 | 2 | 0 | 0 | 3 | 4 | 3 | 2 | 1 | |
| Minimum | 2 | 1 | 3 | 3 | 4 | 3 | 2 | 1 | 2 | 3 | 4 | |
| Maximum | 5 | 5 | 5 | 5 | 4 | 3 | 5 | 5 | 5 | 5 | 5 | |

*Table 90: 'Risk-taker' – Arts versus No Arts*

| | DP Arts | | DP Non-Arts | | Prior Arts | | No Prior Arts | | Arts Outside DP | | No Arts Outside DP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* | *Pre-test* | *Post-test* |
| N | 50 | 26 | 45 | 26 | 70 | 37 | 24 | 15 | 48 | 29 | 47 | 23 |
| Mean | 3.76 | 3.73 | 3.62 | 3.73 | 3.69 | 3.78 | 3.71 | 3.60 | 3.81 | 3.69 | 3.57 | 3.78 |
| Median | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| Mode | 4 | 4 | 4 | 3* | 4 | 4 | 4 | 3* | 4 | 4 | 4 | 4 |
| Std. Deviation | .625 | .874 | .747 | .724 | .627 | .854 | .859 | .632 | .641 | .850 | .715 | .736 |
| Variance | .390 | .765 | .559 | .525 | .393 | .730 | .737 | .400 | .411 | .722 | .511 | .542 |
| Range | 3 | 4 | 3 | 2 | 3 | 4 | 3 | 2 | 3 | 4 | 3 | 2 |
| Minimum | 2 | 1 | 2 | 3 | 2 | 1 | 2 | 3 | 2 | 1 | 2 | 3 |
| Maximum | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |

*Multiple modes exist. The smallest value is shown here.
*Note: One unknown student in Prior Arts versus No prior Arts not reported here

# Appendix 12: Frequency of Themes within LPAs

## Knowledgeable

*Table 91: 'Knowledgeable' – Relative frequency of themes in overall responses*

| Pre-test | | | | Post-test | | |
|---|---|---|---|---|---|---|
| **Themes** | **Total responses** | **117** | | **Themes** | **Total responses** | **59** |
| **K1** | 82% | 96 | | **K1** | 88% | 52 |
| **K2** | 76% | 89 | | **K2** | 92% | 54 |
| **K3** | 25% | 29 | | **K3** | 37% | 22 |
| **K4** | 13% | 15 | | **K4** | 17% | 10 |
| **K5** | 1% | 1 | | **K5** | 0% | 0 |
| **K6** | 14% | 16 | | **K6** | 5% | 3 |
| **K7** | 16% | 19 | | **K7** | 20% | 12 |
| **K8** | 50% | 59 | | **K8** | 59% | 35 |
| **K9** | 17% | 20 | | **K9** | 20% | 12 |

*Table 92: 'Knowledgeable' – Relative frequency of themes in DP Arts-students versus DP Non-Arts-students responses*

| DP Arts-students | | | | | DP Non-Arts-students | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | **Pre-test** | **Total 59** | **Post-test** | **Total 28** | | **Pre-test** | **Total 58** | **Post-test** | **Total 31** |
| **K1** | 80% | 47 | 86% | 24 | **K1** | 83% | 48 | 90% | 28 |
| **K2** | 68% | 40 | 89% | 25 | **K2** | 84% | 49 | 90% | 28 |
| **K3** | 31% | 18 | 39% | 11 | **K3** | 19% | 11 | 35% | 11 |
| **K4** | 12% | 7 | 14% | 4 | **K4** | 16% | 9 | 19% | 6 |
| **K5** | 2% | 1 | 0% | 0 | **K5** | 0% | 0 | 0% | 0 |
| **K6** | 22% | 13 | 4% | 1 | **K6** | 5% | 3 | 6% | 2 |
| **K7** | 14% | 8 | 25% | 7 | **K7** | 14% | 8 | 16% | 5 |
| **K8** | 42% | 25 | 61% | 17 | **K8** | 59% | 34 | 58% | 18 |
| **K9** | 24% | 14 | 14% | 4 | **K9** | 10% | 6 | 26% | 8 |

*Table 93: 'Knowledgeable' – Relative frequency of themes within each category*

| | 1 | 2 | 3 | 4 | 5 | Sums |
|---|---|---|---|---|---|---|
| **Total number of responses per category** | 3 | 9 | 66 | 91 | 25 | **194** |
| **K1** | | 2 | 54 | 79 | 25 | **160** |
| | | 22% | 82% | 87% | 100% | **82%** |
| **K2** | | 1 | 50 | 84 | 24 | **159** |
| | | 11% | 76% | 92% | 96% | **82%** |
| **K3** | | | 9 | 34 | 12 | **55** |
| | | | 14% | 37% | 48% | **28%** |
| **K4** | | | 1 | 14 | 12 | **27** |
| | | | 2% | 15% | 48% | **14%** |
| **K5** | | | | 1 | | **1** |
| | | | | 1% | | **1%** |
| **K6** | | 8 | 14 | | | **22** |
| | | 89% | 21% | | | **11%** |
| **K7** | | 5 | 24 | 4 | | **33** |
| | | 56% | 36% | 4% | | **17%** |
| **K8** | | | 19 | 66 | 19 | **104** |
| | | | 29% | 73% | 76% | **54%** |
| **K9** | | | | 17 | 15 | **32** |
| | | | | 19% | 60% | **16%** |

# Open-minded

*Table 94: 'Open-minded' – Relative frequency of themes in overall responses*

| Themes | Pre-test Total responses | 143 |
|---|---|---|
| O1 | 83% | 119 |
| O2 | 50% | 71 |
| O3 | 54% | 77 |
| O4 | 20% | 29 |

| Themes | Post-test Total responses | 67 |
|---|---|---|
| O1 | 76% | 51 |
| O2 | 58% | 39 |
| O3 | 61% | 41 |
| O4 | 19% | 13 |

*Table 95: 'Open-minded' – Relative frequency of themes in DP Arts-students versus DP Non-Arts-students responses*

| DP Arts-students | Pre-test | Total 76 | Post-test | Total 32 |
|---|---|---|---|---|
| O1 | 86% | 65 | 75% | 24 |
| O2 | 58% | 44 | 59% | 19 |
| O3 | 57% | 43 | 69% | 22 |
| O4 | 18% | 14 | 16% | 5 |

| DP Non-Arts-students | Pre-test | Total 67 | Post-test | Total 35 |
|---|---|---|---|---|
| O1 | 81% | 54 | 86% | 30 |
| O2 | 40% | 27 | 49% | 17 |
| O3 | 51% | 34 | 54% | 19 |
| O4 | 22% | 15 | 23% | 8 |

*Table 96: 'Open-minded' – Relative frequency of themes within each category*

| | 1 | 2 | 3 | 4 | 5 | Sums |
|---|---|---|---|---|---|---|
| Total number of responses per category | 2 | 6 | 95 | 101 | 22 | **226** |
| O1 | | 3 | 78 | 88 | 18 | **187** |
| | | 50% | 82% | 87% | 82% | **83%** |
| O2 | | | 33 | 59 | 21 | **113** |
| | | | 35% | 58% | 95% | **50%** |
| O3 | | | 35 | 70 | 18 | **123** |
| | | | 37% | 69% | 82% | **54%** |
| O4 | | | 3 | 22 | 22 | **47** |
| | | | 3% | 22% | 100% | **21%** |

## Communicator (Forms of Communication)

*Table 97: 'Communicator' – Relative frequency of themes in overall responses*

| Pre-test | | | | Post-test | | |
|---|---|---|---|---|---|---|
| **Themes** | **Total responses** | **105** | | **Themes** | **Total responses** | **47** |
| **C1** | 26% | 27 | | **C1** | 23% | 11 |
| **C2** | 92% | 97 | | **C2** | 89% | 42 |
| **C3** | 12% | 13 | | **C3** | 30% | 14 |
| **C4** | 16% | 17 | | **C4** | 30% | 14 |

*Table 98: 'Communicator' – Relative frequency of themes in DP Arts-students versus DP Non-Arts-students responses*

| DP Arts-students | | | | | DP Non-Arts-students | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | **Pre-test** | **Total 53** | **Post-test** | **Total 21** | | **Pre-test** | **Total 52** | **Post-test** | **Total 26** |
| **C1** | 26% | 14 | 24% | 5 | **C1** | 25% | 13 | 23% | 6 |
| **C2** | 92% | 49 | 90% | 19 | **C2** | 92% | 48 | 88% | 23 |
| **C3** | 13% | 7 | 24% | 5 | **C3** | 12% | 6 | 15% | 4 |
| **C4** | 13% | 7 | 14% | 3 | **C4** | 19% | 10 | 15% | 4 |

*Table 99: 'Communicator' – Relative frequency of themes within each category*

| | 1 | 2 | 3 | 4 | 5 | Sums |
|---|---|---|---|---|---|---|
| **Total number of responses per category** | 2 | 9 | 90 | 51 | 11 | **163** |
| **C1** | | | 11 | 24 | 3 | **38** |
| | | | 12% | 47% | 27% | **23%** |
| **C2** | | 5 | 85 | 46 | 11 | **147** |
| | | 56% | 94% | 90% | 100% | **90%** |
| **C3** | | | 6 | 9 | 8 | **23** |
| | | | 7% | 18% | 73% | **14%** |
| **C4** | | | 3 | 19 | 5 | **27** |
| | | | 3% | 37% | 45% | **17%** |

## Inquirer, Thinker, Reflective (Critical Thinking)

*Table 100: 'Inquirer' – Relative frequency of themes in overall responses*

| Themes | Pre-test Total responses | 90 | | Themes | Post-test Total responses | 44 |
|--------|--------------------------|-----|---|--------|---------------------------|-----|
| I1 | 18% | 16 | | I1 | 27% | 12 |
| I2 | 8% | 7 | | I2 | 16% | 7 |
| I3 | 11% | 10 | | I3 | 30% | 13 |
| I4 | 10% | 9 | | I4 | 16% | 7 |

*Table 101: 'Inquirer' – Relative frequency of themes in DP Arts-students versus DP Non-Arts-students responses*

| | DP Arts-students | | | | | DP Non-Arts-students | | | |
|---|---------|----------|-----------|----------|---|---------|----------|-----------|----------|
| | Pre-test | Total 48 | Post-test | Total 18 | | Pre-test | Total 42 | Post-test | Total 26 |
| I1 | 23% | 11 | 39% | 7 | I1 | 19% | 8 | 19% | 5 |
| I2 | 17% | 8 | 17% | 3 | I2 | 5% | 2 | 15% | 4 |
| I3 | 10% | 5 | 39% | 7 | I3 | 14% | 6 | 23% | 6 |
| I4 | 13% | 6 | 22% | 4 | I4 | 7% | 3 | 12% | 3 |

*Table 102: 'Thinker' – Relative frequency of themes in overall responses*

| Themes | Pre-test Total responses | 90 | | Themes | Post-test Total responses | 44 |
|--------|--------------------------|-----|---|--------|---------------------------|-----|
| T1 | 34% | 31 | | T1 | 36% | 16 |
| T2 | 23% | 21 | | T2 | 25% | 11 |
| T3 | 64% | 58 | | T3 | 66% | 29 |
| T4 | 18% | 16 | | T4 | 20% | 9 |
| T5 | 6% | 5 | | T5 | 2% | 1 |

*Table 103: 'Thinker' – Relative frequency of themes in DP Arts-students versus DP Non-Arts-students responses*

| | DP Arts-students | | | | | DP Non-Arts-students | | | |
|---|---|---|---|---|---|---|---|---|---|
| | **Pre-test** | **Total 48** | **Post-test** | **Total 18** | | **Pre-test** | **Total 42** | **Post-test** | **Total 26** |
| **T1** | 38% | 18 | 39% | 7 | **T1** | 31% | 13 | 35% | 9 |
| **T2** | 23% | 11 | 17% | 3 | **T2** | 24% | 10 | 31% | 8 |
| **T3** | 67% | 32 | 72% | 13 | **T3** | 64% | 27 | 62% | 16 |
| **T4** | 17% | 8 | 22% | 4 | **T4** | 19% | 8 | 19% | 5 |
| **T5** | 8% | 4 | 6% | 1 | **T5** | 2% | 1 | 0% | 0 |

*Table 104: 'Reflective' – Relative frequency of themes in overall responses*

| | Pre-test | | | Post-test | |
|---|---|---|---|---|---|
| **Themes** | **Total responses** | **90** | **Themes** | **Total responses** | **44** |
| **R1** | 49% | 44 | **R1** | 52% | 23 |
| **R2** | 9% | 8 | **R2** | 11% | 5 |
| **R3** | 57% | 51 | **R3** | 70% | 31 |
| **R4** | 22% | 20 | **R4** | 27% | 12 |

*Table 105: 'Reflective' – Relative frequency of themes in DP Arts-students versus DP Non-Arts-students responses*

| | DP Arts-students | | | | | DP Non-Arts-students | | | |
|---|---|---|---|---|---|---|---|---|---|
| | **Pre-test** | **Total 48** | **Post-test** | **Total 18** | | **Pre-test** | **Total 42** | **Post-test** | **Total 26** |
| **R1** | 44% | 21 | 44% | 8 | **R1** | 55% | 23 | 62% | 16 |
| **R2** | 8% | 4 | 0% | 0 | **R2** | 10% | 4 | 19% | 5 |
| **R3** | 48% | 23 | 67% | 12 | **R3** | 67% | 28 | 77% | 20 |
| **R4** | 17% | 8 | 33% | 6 | **R4** | 29% | 12 | 23% | 6 |

Table 106: 'Inquirer', 'Thinker', 'Reflective' – Relative frequency of themes within each category

| | Category | 1 | 2 | 3 | 4 | 5 | Sums |
|---|---|---|---|---|---|---|---|
| | Total number of responses per category | 0 | 5 | 48 | 69 | 21 | 143 |
| **Inquirer** | I1 | | | 3 / 6% | 23 / 33% | 4 / 19% | 30 / 21% |
| | I2 | | | 1 / 2% | 13 / 19% | 2 / 10% | 16 / 11% |
| | I3 | | | 4 / 8% | 14 / 20% | 6 / 29% | 24 / 17% |
| | I4 | | | 1 / 2% | 14 / 20% | 3 / 14% | 18 / 13% |
| **Thinker** | T1 | | | 9 / 19% | 29 / 42% | 10 / 48% | 48 / 34% |
| | T2 | | | 4 / 8% | 13 / 19% | 16 / 76% | 33 / 23% |
| | T3 | | 1 / 20% | 19 / 40% | 57 / 83% | 19 / 90% | 95 / 66% |
| | T4 | | | 4 / 8% | 16 / 23% | 5 / 24% | 25 / 17% |
| | T5 | | | 0 / 0% | 3 / 4% | 2 / 10% | 5 / 3% |
| **Reflective** | R1 | | | 20 / 42% | 35 / 51% | 12 / 57% | 67 / 47% |
| | R2 | | | 3 / 6% | 8 / 12% | 2 / 10% | 13 / 9% |
| | R3 | | | 22 / 46% | 49 / 71% | 17 / 81% | 88 / 62% |
| | R4 | | | 8 / 17% | 17 / 25% | 11 / 52% | 36 / 25% |

# Caring and Principled

*Table 107: 'Caring' – Relative frequency of themes in overall responses*

| Pre-test | | | | Post-test | | |
|---|---|---|---|---|---|---|
| **Themes** | **Total responses** | **76** | | **Themes** | **Total responses** | **47** |
| **E1** | 79% | 60 | | **E1** | 87% | 41 |
| **E2** | 12% | 9 | | **E2** | 13% | 6 |
| **E3** | 38% | 29 | | **E3** | 47% | 22 |

*Table 108: 'Caring' – Relative frequency of themes in DP Arts-students versus DP Non-Arts-students responses*

| DP Arts-students | | | | | DP Non-Arts-students | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | **Pre-test** | **Total 38** | **Post-test** | **Total 19** | | **Pre-test** | **Total 38** | **Post-test** | **Total 28** |
| **E1** | 84% | 32 | 89% | 17 | **E1** | 74% | 28 | 86% | 24 |
| **E2** | 13% | 5 | 11% | 2 | **E2** | 11% | 4 | 14% | 4 |
| **E3** | 32% | 12 | 58% | 11 | **E3** | 45% | 17 | 39% | 11 |

*Table 109: 'Principled' – Relative frequency of themes in overall responses*

| Pre-test | | | | Post-test | | |
|---|---|---|---|---|---|---|
| **Themes** | **Total responses** | **76** | | **Themes** | **Total responses** | **47** |
| **P1** | 1% | 1 | | **P1** | 2% | 1 |
| **P2** | 29% | 22 | | **P2** | 23% | 11 |
| **P3** | 41% | 31 | | **P3** | 28% | 13 |
| **P4** | 1% | 1 | | **P4** | 0% | 0 |

*Table 110: 'Principled' – Relative frequency of themes in DP Arts-students versus DP Non-Arts-students responses*

| DP Arts-students | | | | | DP Non-Arts-students | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | **Pre-test** | **Total 38** | **Post-test** | **Total 19** | | **Pre-test** | **Total 38** | **Post-test** | **Total 28** |
| **P1** | 0% | 0 | 0% | 0 | **P1** | 3% | 1 | 4% | 1 |
| **P2** | 24% | 9 | 11% | 2 | **P2** | 34% | 13 | 32% | 9 |
| **P3** | 34% | 13 | 26% | 5 | **P3** | 47% | 18 | 29% | 8 |
| **P4** | 3% | 1 | 0% | 0 | **P4** | 0% | 0 | 0% | 0 |

*Table 111: 'Caring' and 'Principled' – Relative frequency of themes in overall responses (additional themes)*

| Pre-test | | | | Post-test | | |
|---|---|---|---|---|---|---|
| **Themes** | **Total responses** | **76** | | **Themes** | **Total responses** | **47** |
| **EP5** | 20% | 15 | | **EP5** | 28% | 13 |
| **EP6** | 11% | 8 | | **EP6** | 17% | 8 |
| **EP7** | 46% | 35 | | **EP7** | 51% | 24 |
| **EP8** | 4% | 3 | | **EP8** | 15% | 7 |
| **EP9** | 2% | 1 | | **EP9** | 10% | 4 |

*Table 112: 'Caring' and 'Principled' – Relative frequency of themes in DP Arts-students versus DP Non-Arts-students responses (additional themes)*

| | DP Arts-students | | | | | DP Non-Arts-students | | | |
|---|---|---|---|---|---|---|---|---|---|
| | **Pre-test** | **Total 38** | **Post-test** | **Total 19** | | **Pre-test** | **Total 38** | **Post-test** | **Total 28** |
| **EP5** | 24% | 9 | 37% | 7 | **EP5** | 16% | 6 | 21% | 6 |
| **EP6** | 8% | 3 | 21% | 4 | **EP6** | 13% | 5 | 14% | 4 |
| **EP7** | 47% | 18 | 37% | 7 | **EP7** | 45% | 17 | 50% | 14 |
| **EP8** | 5% | 2 | 21% | 4 | **EP8** | 3% | 1 | 11% | 3 |
| **EP9** | 3% | 1 | 0% | 0 | **EP9** | 0% | 0 | 17% | 4 |

*Table 113: 'Caring' and 'Principled' – Relative frequency of themes within each category*

| | Category | 1 | 2 | 3 | 4 | 5 | Sums |
|---|---|---|---|---|---|---|---|
| | **Total number of responses per category** | 1 | 3 | 44 | 76 | 13 | **137** |
| **Caring** | **E1** | | 1<br>33% | 27<br>61% | 70<br>92% | 13<br>100% | **111**<br>**81%** |
| | **E2** | | | 3<br>7% | 10<br>13% | 3<br>23% | **16**<br>**12%** |
| | **E3** | | | 12<br>27% | 34<br>45% | 7<br>54% | **53**<br>**39%** |
| **Principled** | **P1** | | | 0<br>0% | 2<br>3% | 0<br>0% | **2**<br>**1%** |
| | **P2** | | | 1<br>2% | 25<br>33% | 8<br>62% | **34**<br>**25%** |
| | **P3** | | 2<br>67% | 9<br>20% | 30<br>39% | 8<br>62% | **48**<br>**35%** |
| | **P4** | | | 0<br>0% | 0<br>0% | 1<br>8% | **1**<br>**1%** |
| **Emerging themes** | **EP5** | | | 5<br>11% | 22<br>29% | 3<br>23% | **30**<br>**22%** |
| | **EP6** | | | 4<br>9% | 8<br>11% | 6<br>46% | **18**<br>**13%** |
| | **EP7** | | | 14<br>32% | 44<br>58% | 8<br>62% | **66**<br>**48%** |
| | **EP8** | | | 3<br>7% | 8<br>11% | 1<br>8% | **12**<br>**9%** |
| | **EP9** | | 1<br>33% | 2<br>7% | 1<br>1% | 1<br>8% | **5**<br>**5%** |

# Risk-taker (Willingness to Act)

*Table 114: 'Risk-taker' – Relative frequency of themes in overall responses*

| Themes | Pre-test Total responses | 95 |
|--------|--------------------------|-----|
| A1 | 40% | 38 |
| A2 | 15% | 14 |
| A3 | 34% | 32 |
| A4 | 26% | 25 |
| A5 | 31% | 29 |
| A6 | 45% | 43 |
| A7 | 19% | 18 |
| A8 | 25% | 24 |
| A9 | 37% | 35 |

| Themes | Post-test Total responses | 52 |
|--------|---------------------------|-----|
| A1 | 35% | 18 |
| A2 | 31% | 16 |
| A3 | 31% | 16 |
| A4 | 40% | 21 |
| A5 | 48% | 25 |
| A6 | 33% | 17 |
| A7 | 15% | 8 |
| A8 | 35% | 18 |
| A9 | 52% | 27 |

*Table 115: 'Risk-taker' – Relative frequency of themes in DP Arts-students versus DP Non-Arts-students responses*

**DP Arts-students**

|  | Pre-test | Total 48 | Post-test | Total 26 |
|--|----------|----------|-----------|----------|
| A1 | 48% | 23 | 42% | 11 |
| A2 | 17% | 8 | 31% | 8 |
| A3 | 31% | 15 | 27% | 7 |
| A4 | 23% | 11 | 38% | 10 |
| A5 | 25% | 12 | 38% | 10 |
| A6 | 52% | 25 | 23% | 6 |
| A7 | 15% | 7 | 19% | 5 |
| A8 | 17% | 8 | 19% | 5 |
| A9 | 38% | 18 | 46% | 12 |

**DP Non-Arts-students**

|  | Pre-test | Total 47 | Post-test | Total 26 |
|--|----------|----------|-----------|----------|
| A1 | 32% | 15 | 31% | 8 |
| A2 | 13% | 6 | 27% | 7 |
| A3 | 36% | 17 | 35% | 9 |
| A4 | 30% | 14 | 42% | 11 |
| A5 | 30% | 14 | 58% | 15 |
| A6 | 36% | 17 | 38% | 10 |
| A7 | 23% | 11 | 12% | 3 |
| A8 | 34% | 16 | 50% | 13 |
| A9 | 36% | 17 | 58% | 15 |

*Table 116: 'Risk-taker' – Relative frequency of themes within each category*

| Category | 1 | 2 | 3 | 4 | 5 | Sums |
|---|---|---|---|---|---|---|
| **Total number of responses per category** | **1** | **4** | **57** | **84** | **16** | **162** |
| **A1** | | | 1 | 48 | 12 | **61** |
| | | | 2% | 57% | 75% | **38%** |
| **A2** | | | 2 | 16 | 12 | **30** |
| | | | 4% | 19% | 75% | **19%** |
| **A3** | | | 0 | 35 | 13 | **48** |
| | | | 0% | 42% | 81% | **30%** |
| **A4** | | | 1 | 34 | 12 | **47** |
| | | | 2% | 40% | 75% | **29%** |
| **A5** | | 3 | 38 | 21 | 0 | **62** |
| | | 75% | 67% | 25% | 0% | **38%** |
| **A6** | | 1 | 22 | 36 | 9 | **68** |
| | | 25% | 39% | 43% | 56% | **42%** |
| **A7** | | | 7 | 19 | 4 | **30** |
| | | | 12% | 23% | 25% | **19%** |
| **A8** | | 1 | 12 | 28 | 8 | **48** |
| | | 25% | 21% | 33% | 50% | **30%** |
| **A9** | | 1 | 29 | 26 | 10 | **66** |
| | | 25% | 51% | 31% | 63% | **41%** |

# Appendix 13: Frequency of Themes across LPAs

*Table 117: 'Knowledgeable' – Relative frequency of themes associated with other LPAs*

|  | 1 | 2 | 3 | 4 | 5 | Total |
|---|---|---|---|---|---|---|
| **Total number of examples given per category** | **3** | **9** | **66** | **91** | **25** | **194** |
| **Open-minded** |  |  | 42% | 54% | 88% | **51%** |
| **Communicator (Forms of communication)** |  | 11% | 32% | 44% | 72% | **41%** |
| **Critical thinking (Inquirer, Thinker, Reflective)** |  |  | 36% | 81% | 96% | **63%** |
| **Caring/Principled** |  | 22% | 45% | 74% | 88% | **62%** |
| **Risk-taker (Willingness to act)** |  | 11% | 6% | 30% | 48% | **23%** |
| **Balanced** |  | 33% | 42% | 78% | 100% | **65%** |

*Table 118: 'Open-minded' – Relative frequency of themes associated with other LPAs*

|  | 1 | 2 | 3 | 4 | 5 | Total |
|---|---|---|---|---|---|---|
| **Total number of examples given per category** | **2** | **6** | **95** | **101** | **22** | **226** |
| **Knowledgeable** |  |  | 12% | 19% | 9% | **14%** |
| **Communicator (Forms of communication)** |  | 33% | 34% | 46% | 27% | **38%** |
| **Critical thinking (Inquirer, Thinker, Reflective)** |  |  | 49% | 83% | 95% | **67%** |
| **Caring/Principled** |  |  | 34% | 81% | 55% | **56%** |
| **Risk-taker (Willingness to act)** |  |  |  | 7% | 0% | **3%** |
| **Balanced** |  | 17% | 41% | 88% | 86% | **65%** |

*Table 119: 'Communicator' (Forms of communication) – Relative frequency of themes associated with other LPAs*

|  | 1 | 2 | 3 | 4 | 5 | Total |
|---|---|---|---|---|---|---|
| **Total number of examples given per category** | **2** | **9** | **90** | **51** | **11** | **163** |
| **Knowledgeable** |  |  | 19% | 45% | 73% | **29%** |
| **Open-minded** |  |  | 3% | 10% | 55% | **9%** |
| **Critical thinking (Inquirer, Thinker, Reflective)** |  |  | 17% | 73% | 82% | **37%** |
| **Caring/Principled** |  |  | 9% | 33% | 45% | **18%** |
| **Risk-taker (Willingness to act)** |  |  | 14% | 57% | 73% | **31%** |
| **Balanced** |  |  | 26% | 69% | 64% | **40%** |

*Table 120: 'Inquirer', 'Thinker', 'Reflective' (Critical thinking) – Relative frequency of themes associated with other LPAs*

| | 1 | 2 | 3 | 4 | 5 | Total |
|---|---|---|---|---|---|---|
| **Total number of examples given per category** | **0** | **5** | **48** | **69** | **21** | **143** |
| **Knowledgeable** | | | 29% | 43% | 52% | **38%** |
| **Open-minded** | | | 71% | 12% | 52% | **37%** |
| **Communicator (Forms of communication)** | | | 67% | 54% | 52% | **56%** |
| **Caring/Principled** | | | 17% | 45% | 71% | **38%** |
| **Risk-taker (Willingness to act)** | | | 2% | 12% | 52% | **14%** |
| **Balanced** | | 60% | 41% | 77% | 86% | **69%** |

*Table 121: 'Caring' and 'Principled' – Relative frequency of themes associated with other LPAs*

| | 1 | 2 | 3 | 4 | 5 | Total |
|---|---|---|---|---|---|---|
| **Total number of examples given per category** | **1** | **3** | **44** | **76** | **13** | **137** |
| **Knowledgeable** | | 67% | 5% | 4% | 31% | **8%** |
| **Open-minded** | | | 20% | 13% | 23% | **16%** |
| **Communicator (Forms of communication)** | | | 16% | 20% | 23% | **18%** |
| **Critical thinking (Inquirer, Thinker, Reflective)** | | | 9% | 14% | 46% | **15%** |
| **Risk-taker (Willingness to act)** | | | 16% | 37% | 69% | **32%** |
| **Balanced** | | | 45% | 86% | 100% | **72%** |

*Table 122: 'Risk-taker' (Willingness to act) – Relative frequency of themes associated with other LPAs*

| | 1 | 2 | 3 | 4 | 5 | Total |
|---|---|---|---|---|---|---|
| **Total number of examples given per category** | **1** | **4** | **57** | **84** | **16** | **162** |
| **Knowledgeable** | | | 21% | 32% | 75% | **31%** |
| **Open-minded** | | | 2% | 2% | 0% | **2%** |
| **Communicator (Forms of communication)** | | | 2% | 4% | 13% | **4%** |
| **Critical thinking (Inquirer, Thinker, Reflective)** | | | 9% | 27% | 38% | **21%** |
| **Caring/Principled** | | 75% | 40% | 64% | 50% | **54%** |
| **Balanced** | | 25% | 60% | 83% | 81% | **73%** |

# Appendix 14: Interconnectedness

*Table 123: Interconnectedness – 'knowledgeable'*

|  | Total | | DP Arts | | DP Non-Arts | |
|---|---|---|---|---|---|---|
|  | **Pre-test** | **Post-test** | **Pre-test** | **Post-test** | **Pre-test** | **Post-test** |
| **Intrapersonal connectedness** | 61% | 51% | 61% | 61% | 59% | 42% |
| **Interpersonal connectedness** | 83% | 78% | 80% | 79% | 86% | 77% |
| **Global connectedness** | 33% | 47% | 29% | 36% | 39% | 58% |

*Table 124: Interconnectedness – 'open-minded'*

|  | Total | | DP Arts | | DP Non-Arts | |
|---|---|---|---|---|---|---|
|  | **Pre-test** | **Post-test** | **Pre-test** | **Post-test** | **Pre-test** | **Post-test** |
| **Intrapersonal connectedness** | 94% | 91% | 99% | 88% | 88% | 94% |
| **Interpersonal connectedness** | 87% | 88% | 76% | 88% | 82% | 89% |
| **Global connectedness** | 29% | 43% | 28% | 50% | 31% | 37% |

*Table 125: Interconnectedness – 'communicator' (forms of communication)*

|  | Total | | DP Arts | | DP Non-Arts | |
|---|---|---|---|---|---|---|
|  | **Pre-test** | **Post-test** | **Pre-test** | **Post-test** | **Pre-test** | **Post-test** |
| **Intrapersonal connectedness** | 91% | 96% | 94% | 95% | 88% | 96% |
| **Interpersonal connectedness** | 58% | 55% | 66% | 57% | 50% | 50% |
| **Global connectedness** | 19% | 26% | 25% | 19% | 13% | 31% |

*Table 126: Interconnectedness – 'inquirer', 'thinker', 'reflective' (critical thinking)*

|  | Total | | DP Arts | | DP Non-Arts | |
|---|---|---|---|---|---|---|
|  | **Pre-test** | **Post-test** | **Pre-test** | **Post-test** | **Pre-test** | **Post-test** |
| **Intrapersonal connectedness** | 66% | 50% | 65% | 50% | 67% | 50% |
| **Interpersonal connectedness** | 66% | 77% | 77% | 89% | 76% | 69% |
| **Global connectedness** | 52% | 61% | 54% | 61% | 33% | 62% |

*Table 127: Interconnectedness – 'caring' and 'principled'*

|  | Total | | DP Arts | | DP Non-Arts | |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Pre-test** | **Post-test** | **Pre-test** | **Post-test** | **Pre-test** | **Post-test** |
| **Intrapersonal connectedness** | 49% | 51% | 47% | 47% | 50% | 54% |
| **Interpersonal connectedness** | 99% | 94% | 100% | 100% | 97% | 89% |
| **Global connectedness** | 9% | 11% | 3% | 11% | 18% | 11% |

*Table 128: Interconnectedness – 'risk-taker' (willingness to act)*

|  | Total | | DP Arts | | DP Non-Arts | |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Pre-test** | **Post-test** | **Pre-test** | **Post-test** | **Pre-test** | **Post-test** |
| **Intrapersonal connectedness** | 48% | 56% | 50% | 46% | 47% | 65% |
| **Interpersonal connectedness** | 64% | 40% | 69% | 31% | 60% | 50% |
| **Global connectedness** | 49% | 62% | 48% | 65% | 51% | 58% |

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