# The implementation of blended learning in International Baccalaureate Diploma Programme (IBDP) English A curriculum in Singapore: An exploratory design-based research

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This thesis results entirely from my own work and has not been offered previously for any other degree or diploma.

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**Abstract**

Twenty-first century challenges have generated increasing focus in the use of technology in classrooms to better prepare students for the knowledge economy. In Singapore, the Ministry of Education has encouraged both a shift toward more student-centred pedagogies and the use of technology in classrooms. Though inclusion of technology into classrooms is deemed as useful, it has met with resistance. Teachers and students generally regard information and communications technology (ICT) as an *add-on* with marginal importance in examination-oriented Singapore.

In Singapore, the International Baccalaureate Diploma Programme was introduced in some schools with the aim to nurture students as inquirers, thinkers and communicators over a challenging two-year timeline. Amidst such challenges, this study uses a blended learning approach to address systemic requirements (i.e. ICT) under curricular constraints of the IBDP.

Research was conducted using design-based research by the teacher-researcher over a period of three academic terms within a calendar year. Data, collected from two classes, included field notes, questionnaires and focus group interviews (FGIs). The analysis of the two questionnaires, using Statistical Package for the Social Sciences (SPSS) software, provided an overview of the patterns of students' use of technology before and after the intervention study. Content analysis was used as a method of analysis for the FGIs. Themes that emerged from the FGIs were mapped onto a *Considerations Model*, providing a more nuanced overview of key considerations needed for a blended learning approach.

Findings showed that students enjoyed blended learning and found it useful as a bridge between the curriculum and their world; but, they were first and foremost, concerned with their academic performance. Though these students are by some researchers defined as digital natives, findings showed that they were not necessarily digitally literate. Nonetheless, this study suggests that a blended learning approach could be implemented through the *Considerations Model*.

## Contents

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## Chapter 1: Introduction

### *1.1 Overview*

The advent of globalisation in the twenty-first century has seen not only an increasing interaction between technology and the economy but the far-reaching effects has also extended to the education field. Yet, twenty-first century learning is not just mere inclusion of digital technologies. Instead, technologies should be seen as a tool used to initiate students to the "*pleasure of rigour* of highly complex thinking and doing" (McWilliam, 2009, p. 12). Within classrooms, blended learning has become increasingly popular. In fact, Ross and Gage (2006) predict that it could very well become the next "new traditional model" (p. 167), the "new normal" (Norberg, Dziuban, & Moskal, 2011, p. 207). But, it has also been described as a dangerous conception (Seife, 2000) because it perturbs a status quo where on the one hand, it needs to maintain the integrity of traditional curriculum and on the other, encourages 'new' online learning activities. After all, blended learning not only provides flexibility but also creates a learning environment where dynamics of both teaching and learning are reconceptualised and reorganised (Garrison & Kanuka, 2004). Nevertheless, there are inherent challenges in the use of blended learning. In earlier use of the blended learning models, users were faced with seemingly unlimited potential combinations of face-to-face and online learning (e.g. 60-40, 70-30, 50-50), all of which are valid. In short, there is no formula which can be adopted because this will depend on the "culture and climate of each institution and therefore have to be tuned to the institution's dynamics" (Moskal, Dziuban, & Hartman, 2013, p. 16).

Likewise, in Singapore, the focus on technology, and the need to remain competitive in the face of global challenges has seen similar emphases in education. More recently, the Singapore Ministry of Education (MOE) identified key competencies in the twenty-first century to better prepare their students to "thrive in a fast-changing world" (MOE, 2010). Their response to these demands was an introduction of information communication technology (ICT) initiatives, encouraging the use of technology in the classrooms two decades earlier. In addition, the set-up of research centres such as the *Learning Sciences Laboratory* at the National Institute of Education has seen ICT-related studies conducted. These highlight the growing

interest in the use of technology in the classroom, a research area to which this study aims to contribute. The following section provides the study's background which helps to explain where it is situated.

*1.2 Research Background*

The background of this research is situated in the Singapore education context, a context which is highly aware of the need to ensure that its only resource – human labour – remains competitive in the face of twenty-first century global challenges. Accordingly, initiatives geared toward these challenges, such as *Thinking Schools, Learning Nation* (1997)[1], *Teach Less Learn More* (2004)[2] and the current, *Every School A Good School* (2014)[3] share common educational objectives such as differentiated educational opportunities, lifelong learning and innovative constructivist pedagogies. Added to this, awareness of the close interaction between technology and the economy needs to be addressed through education, albeit, the ICT Masterplans.

As mentioned previously, Singapore advocated integration of ICT in education two decades ago, and this is mainly accomplished through four Masterplans. The first Masterplan (1997-2002) acknowledged the need to provide schools with necessary physical technological infrastructure. The second and third Masterplans (2003-2014) focused on the successful and effective integration of ICT into the curriculum. A large-scale research study, conducted in 2009, reported that students possessed basic but competent IT skills (Tan et al., 2010). In needing to remain flexible to the demands of globalisation and technological advancements, ICT Masterplan 4 (2015-present) introduced "Student Learning Space", an online integrated learning space offering students and teachers "digital teaching and learning resources" from 2016 (MOE, 2014). The MOE's focus on the need to include digital technologies is not one of blind

[1] An initiative aimed to develop critical and creative thinking in students using instructional technology, thus, allowing for greater autonomy in curriculum development and implementation.

[2] An initiative aimed to encourage more quality interaction between teachers and learners and encourage more active and independent learning in students.

[3] An initiative aimed to encourage schools to customise innovative programmes that develop the varied interests and abilities of their students.

adoption but rather a pragmatic inclusion directed at enhancing students' learning in the local classrooms. Whilst these Masterplans targeted the development of schools' infrastructure and professional development of teachers, the MOE also set up research centres to develop and implement innovations since 2002. Consequently, there has been a sprouting of ICT-related research projects from 2005 (see Section 2.2.2). These show the MOE's acknowledgement of the need to include technology in classrooms.

Another of the MOE's initiatives in the late 1990s (i.e. *Thinking Schools Learning Nation*) not only encouraged schools' "innovation capacity" so as to "create more educational pathways" (Ng, 2010, p. 288), but also decentralised state control on education. With selected schools (i.e. independent schools) given the autonomy to tailor the curriculum to the needs of their students, the IBDP is one such innovation that was adopted. The IBDP was designed in the 1960s as a pre-university programme, aimed at bringing academic coherence to 16-19 year-olds in primarily, private international schools (J.O. Conner, 2008). It is highly regarded as a programme that maintained its intended educational objectives even when implemented in different contexts (ibid). The popularity of the IB can be seen by the increase to 4,655 schools who have adopted its programmes. IB Americas has a total of 2,833 (60.9%) schools, followed by IB Africa, Europe and Middle East with 1,044 (22.4%) schools and finally IB Asia Pacific with 778 (16.7%) schools (ibo, 2017). It is not only independent schools that adopt the IBDP but state schools too, as seen in countries such as Australia (Doherty, 2013), United Kingdom (Bunnell, 2008; Hayden, 2013), United States (J.O. Conner, 2008) and the Asia-Pacific region (Guy & Switzer, 2010). Singapore started with one IB World School in 1977 but has since, seen a growth to a total of 34 World Schools of which, 24 are currently offering the IBDP (ibo, 2017).

Within the Singapore context, Vidovich and Yap (2008) observe that the MOE's decision to allow the adoption of the IBDP in independent and/or privately funded schools can be seen as a means of experimentation which helps to widen school and curriculum choices. This study is situated in one of these independent schools which adopted the IBDP and has been accorded the status of an IB World School since 2005.

Whilst the school does possess autonomy over curricular choices, it remains closely aligned with initiatives from the MOE. One prime example is the ICT initiatives which encourage the use of technology in classrooms and the school designates one day per academic year as an e-learning day.[4]

*1.3 Statement of the Problem*

The statement of the problem that this study explores is situated within the local education context where calls to include technology in classrooms remains as a MOE initiative that encourages, with little or no guidelines. This lack of clear guidelines could be, in part, to urge schools to embark on their own innovation best-suited for their students. However, this call for the use of ICT in schools was met with lacklustre response from both students and teachers (Fang, 2007; Jacobson et al., 2010; Tan et al., 2010; Tham & Tham, 2011). Teachers observed that the use of ICT can be time-consuming and as such, derailed them from conducting meaningful lessons, albeit, lessons that are examination-focused. Moreover, ICT-related activities are often non-examinable and hence, regarded as expendable (Tan et al., 2010). From the perspective of students, though they agree that ICT-related activities are interesting, they perceive them as social activities and wholly unconnected with formal learning (Fang, 2007; Tham & Tham, 2011). Nonetheless, current day students are what would be regarded by some researchers as digital natives who display short attention span, expect both instant access to information and "technology to be an integral part of their education" (Waycott et al., 2010, p. 1202). Contrary findings have cautioned this assumed technological literacy, arguing that students may not necessarily be digitally competent (Kennedy et al., 2008; Li & Ranieri, 2010), or prefer the use of technology in their formal learning (Ben-David Kolikant, 2012; Margaryan, Littlejohn, & Vojt, 2011; Ng, 2012; Wang et al., 2014). Yet, a recent study by Thompson (2013) reports that digital natives can be "active agents" and make informed decisions despite "competing demands of technology, their social world" and their studies (p. 481). Within the Singapore context, the determination of the MOE in ensuring that benefits of

[4] A day where students stay home and engaged in online activities on the *Learning Management System* platform.

technology are leveraged upon, despite findings from Tan et al.'s (2010) survey of the Masterplan 3, is seen from the launch of an integrated online teaching and learning space in 2016. These hint at an eventual need for technologically-literate teachers to leverage on technological tools to enhance both teaching and learning in classrooms.

Of course, ICT is not the only concern that the MOE has in equipping their students with necessary twenty-first century skills. Initiatives were introduced to provide "greater autonomy at the school level" and "greater diversity and choice in the educational landscape" (Tan, 2008, p. 112). This autonomy granted to schools resulted in more diversity of programmes, one of which is the IBDP that promotes inquiry-based, multi-disciplinary, critical-thinking learning. On the surface, it appears that schools are granted autonomy in their choice of innovative programmes but one of the systemic challenges is that the nation state retained its stranglehold on education through "a culture of [academic] performativity" (Tan, 2008, p. 116). This emphasis on education in Singapore arises from the need to ensure that students remain economically competitive in meritocratic Singapore, thus, resulting in a highly competitive education system. This is not unique to Singapore as a globalised world meant that more countries adopted measures aimed at decentralising education but unfortunately, also saw an increasing weightage on academic performativity (Angus, 2004; Green, 1999; Marginson, 1999; Tan & Ng, 2007; Tan, 2008). Similarly, the Singapore government too introduced education strategies to first provide "greater diversity and choice in the educational landscape" and second, allow for "greater autonomy and motivation at the school level" (Tan, 2008, p. 112). Nevertheless, academics have found that despite attempts made at innovative curriculum, they were largely bounded by the constraints of high-stakes examinations (see Jacobson et al., 2010; Lim, 2006; Ow & Ho, 1993; Philomin, 2015; Tan, 2014). This intimidating academic performativity ethos that pervades the Singapore education context often results in cultural challenges hindering the successful implementation of imported pedagogies. Consequently, the stress on high-stakes examinations (i.e. the IB Diploma) meant that these Asian students are just as examination-oriented and expect the teaching and learning to be geared toward IB assessments. This focus on assessments is further complicated by IBDP's knowledge and skill requirements that need to be

addressed within the stipulated two-year programme. A common solution would be the adoption of didactic teaching except that this runs contrary with IB's education philosophy, where they are expected to become for example, *inquirers*, *thinkers and communicators*. What this entails are expectations that students need to display in their learning; to be an independent learner, critical and creative thinker and work collaboratively with their peers, all of which display "intercultural understanding and respect" (ibo, 2014). More specifically, the English A: Language and Literature (LangLit) programme, which this study is situated in, is a subject that demands that students engage with texts outside of their own contexts, and thus, preparing them for "global engagement" (ibo, 2014), whilst exhibiting all the said characteristics above.

In summary, this study proffers a way of mediating, using a blended learning approach, the tension between firstly, the MOE's initiatives in encouraging an inclusion of ICT in the classrooms and the pressure of a non-negotiable examination ethos and secondly, the educational aims of IBDP constrained by the two-year timeline. After all, online activities on varied platforms can proffer more learning resources (So & Bonk, 2010). Furthermore, the community of inquiry created in blended learning affords students with more opportunities in engaging with both collaborative and independent learning. Moreover, as of now, there is no research on the use of blended learning in the LangLit programme and this research aims to fill this gap.

### *1.4 Purpose of the Study*

The purpose of this thesis is to explore how a blended learning approach could be implemented in a Singapore education context in an IBDP English A classroom. As mentioned previously, a hybrid problem is created through first, IBDP educational aims of requiring students to work collaboratively together, engage in both critical thinking and independent learning within a tight two-year period and second, the MOE's initiatives (i.e. ICT-initiative) and stranglehold through academic performativity. Accordingly, a blended learning approach could help to address this problem by exploring ways in which it can be implemented in an English classroom. Students' experiences and perception of the effectiveness of blended learning would help to provide a more holistic picture of key aspects necessary for future implementation.

The design of this study builds upon module papers that was written by the teacher-researcher. For instance, in Ang (2015a), the study aimed to understand students' conceptions of learning and their initial experiences of blended learning in their English A: Lang Lit curriculum. The online activities focused on a discussion on the online forum and a construction of a wiki. From the study, students displayed mixed feelings toward blended learning. On one hand, they found it interesting whilst on the other, it did not factor in their assessments and hence, the participation was lacklustre at times. In addition, issues on the constraints of time and the cumbersome nature of the LMS was also highlighted. In short, questions that arose from the study revolved around firstly, whether students' feedback of the tedious nature of secure school-based technological platforms (i.e. LMS) as one of unfamiliarity in comparison to their preferred social media platforms. Secondly, students' concerns on the place of such online activities in their assessments also challenged the adoption of ICT within the classroom.

Ang's (2015b) study built on the findings reported in Ang (2015a) and examined students' or this so-called digital natives' use of technology in- and out-of-school. Online tasks were limited to an online forum on LMS and Google docs. Findings revealed gaps between assumptions made in previous literature and the actual use of students' technological needs. The key findings reported showed that these so-called digital natives were technologically literate in their use of technology and were more than savvy in using it pragmatically for their learning. Nonetheless, they maintained a view of the teacher as the authorial figure even as they report that they found online group tasks as meaningful. This study intended as a pre-pilot to understand so-called digital natives' experiences helped to provided further insights into the manner in which the design of the study proper could be further refined.

Accordingly, this research study builds on the above-mentioned studies (see Section 4.2) and aims to explore the use of a blended learning approach in LangLit programmes through the following research questions:

1. What are the ways in which a blended learning approach can be implemented in

the IBDP English A classroom?

2. What are students' experiences of the blended learning approach and their perception on the effectiveness of this approach for their learning?
3. What are the important aspects that need to be taken into account in the effective design and implementation of a blended learning approach in this specific educational context of Singapore?
    a. What are the cultural considerations?
    b. What are the pedagogical considerations?
    c. What are the technological considerations?

*1.5 Significance of the Study*

Findings from this research contribute to theory building, practice and policy. This study aims to contribute to the empirical research on blended learning and computer-supported collaborative learning (CSCL). It joins a growing body of research that has reported on the use of blended learning or ICT-related research (Dillenbourg, Jarvela, & Fischer, 2009; Garrison, Anderson, & Archer, 2001; McGee & Reis, 2012; Monteiro & Morrison, 2014; Šafranj, 2013). More specifically, this research seeks to contribute to not only the local research scene on ICT-related projects but that of the IBDP literature. To date, there has been little or no research on the use of blended learning in the IBDP English A and this study aims to fill the gap. The literature also shows that whilst technology has become almost innate with the digital natives notion, careful curation is required in using technology within classrooms (Ben-David Kolikant, 2012; Kennedy et al., 2008; Neumann, 2016; Thompson, 2013, 2015; Wang et al., 2014). Consequently, this study is part of the growing body of research that has explored the conundrum that confronts today's so-called digital natives.

This study will also inform local practitioners who seek to include blended learning in local classrooms. It aims to contribute to local research in understanding how blended learning could be incorporated into the curriculum and examines the resulting issues and challenges. Given that the IBDP is a foreign import, the use of blended learning within the local constraints helps to provide further insights of

practice where demands and objectives of foreign curriculum with local educational policies and constraints are mediated.

Finally, this study aims to contribute to policy in the area of using technology as part of a learning strategy in the classroom. The stress in meeting the demands of globalisation and technological advancements has seen the introduction of ICT-related initiatives almost ten years ago. Nonetheless, MOE's broad guidelines of a pragmatic inclusion of technology in classrooms has resulted in lacklustre uptake (Tan et al., 2010) or ad hoc attempts (see Section 2.2.2). This study, with its analysis of key aspects required in the effective design and implementation of a blended approach, offers a potential list of considerations in the incorporation of technology into a curriculum.

### *1.6 Overview of the Thesis*

The next chapter reviews the literature pertinent to this study. The literature review is divided into three main areas. It first provides the historical overview of the innovation programme, LangLit in the IBDP. Second, it explores the literature on blended learning and its place in the Singapore education scene. Finally, the review of the Singapore context and its students are discussed.

The first section of the research literature provides a historical overview of the IBDP place in Singapore. More specifically, this historical overview aims to provide insights into the multiculturalism and international awareness aspects of the IBDP curriculum and how, on the surface, it does meet the demands of one of Singapore's educational policies as an innovation. Next, the pedagogical underpinnings of the IBDP which draws on a variety of learning and teaching approaches are also examined which helps to further inform the design of the curriculum. The construct of the subject, LangLit and the constraints in fulfilling the objectives of this subject within the local educational arena are discussed. This helps to underscore the relevance of using a blended learning approach. The second section of this chapter provides a review of empirical research conducted on blended learning and CSCL research. The definition of blended learning also helps to clarify this study's use. Subsequently, key traits of

Asian learners are discussed, thus, helping to inform the online learning design for these learners. An exploration of ICT-related projects within the local context to date helps to provide the background to this study. The final section of the literature examines the Singapore context and examines specifically both Asian students' learning approaches and so-called digital natives and their perception on the use of technology in the classrooms. The latter review also includes a closer examination of digital natives in the Singapore context. The complex local education landscape is also explored as it provides insights into challenges related to innovation adoption.

The third chapter details the methodology that is employed in this study. The discussion of this methodological paradigm includes design research principles, the researcher's position and background of the research site and participants. Data collection procedures pertaining to the research design, questionnaires, focus group interviews (FGIs) are also described. The analytical procedures used to examine the data are also presented.

Chapters 4 and 5 present the findings. Chapter 4 addresses the first research question and first, outlines the antecedents of the study which help to inform the design of the study. Second, it describes the three design iterations before providing a brief report on the findings of the questionnaires and first FGI. Chapter 5 presents the findings from the remaining two FGIs and addresses the second research question. Themes are drawn from the findings and these are also triangulated with field notes and questionnaires, thus, providing a more holistic picture of students' experience of the blended learning approach and their perception of the effectiveness in their learning.

Chapter 6 discusses the findings presented in the previous two chapters and discusses the implications. The first two sections of the chapter address the first and second research question respectively and discuss implications in relation to theory and practice. The last section addresses the third research question and discusses key areas of considerations needed for the effective design and implementation of a blended learning approach. Implications are also discussed in relation to theory,

practice and policy. In Chapter 7, a summary of the findings, limitations of the study are discussed, directions for future research suggested and concluding comments proffered.

## Chapter 2: Literature Review

As explained in the previous chapter, the research presented in this study examines the use of blended learning in the IBDP English A curriculum in the Singapore educational context. Whilst blended learning has been regarded as one of the outcomes of the introduction of the world-wide web or the Internet in the twenty-first century, challenges arise from its subsequent inclusion in classrooms. Thus, in view of this and the specific research questions that this study asks on the design and implementation of blended learning in the IBDP LangLit classroom, this chapter presents a synthesis of literature related to IBDP, blended learning and the cultural, pedagogical and technological considerations of the Singapore context. The reviewed literature does not only highlight recent studies conducted but also included a purview of existing local research. In the search for the literature, online bibliographic databases were employed and these ranged from (a) OneSearch, EBSCO Host, ERIC (Education Resources Information Center), (b) Science Direct, (c) Academic Search Complete and (d) Singapore's Office of Education Research database. Searches were limited to articles published in journals and conference proceedings in English from 1980 onwards. The literature review is divided into three main sections, each with a theme that is central to this study: (1) Historical Overview of the IBDP and LangLit, (2) Blended Learning and (3) the Singapore Context.

To address research question 1 (RQ1) on the ways in which a blended learning approach can be implemented in the IBDP English A classroom, the literature first provides a historical overview of IBDP and the LangLit subject and places LangLit in the historical context as a globalised subject. Second, it also highlights the pedagogical underpinnings of IBDP which will further inform the research design reported in Chapter 3. The search string used was: ("IBDP" OR "English" OR "international mindedness") AND ("IBDP" OR "English" OR "Language and Literature" OR "English A"). There was a total of 113 and 239 articles published respectively. Based on these articles, a content analysis was carried out, using article abstracts and publication information. The following criteria were used to further filter the papers needed in this review: (a) principles of IBDP, (b) empirical evidence relating to IBDP international awareness, (c) empirical research that examined the implementation of IBDP in Asia.

These criteria helped to address the main objectives of this review. Using these three conditions, a total of 41 articles met the inclusion criteria and were identified as relevant to this section of the review. In addition, there are currently no research articles written on the LangLit programme. Accordingly, the literature review of this programme was drawn from the ibo database where a total of 22 articles were identified as pertinent. In sum, this historical overview of both IBDP and English A classroom helps to provide the background context in addressing research questions 1 and 3.

The second section addresses research question 1 on the blended learning approach. The literature review begins with an overview of blended learning in both English education and in Singapore. The search string used was: ("blended learning OR "collaborative learning" OR "computer-supported collaborative learning systems" OR "community of inquiry) which generated a total of 149 articles. In addition, the search also included the Singapore examination culture and blended learning within Singapore schools. Similarly, a content analysis was carried out and papers had to include (a) blended learning principles and definitions, (b) empirical research on blended learning and CSCL, and (c) collaborative learning. Consequently, a total of 88 articles met the inclusion criteria and were identified as relevant to this section of the review. The findings from this body of research help to construct a picture of what constitutes blended learning, especially in Singapore's educational context. All of these will further inform and address research question 3 in examining the pedagogical and technological considerations needed for an effective design and implementation of a blended learning approach.

The third and final section addresses research question 3 which examines what pedagogical, cultural and technological considerations are necessary for the implementation of blended learning. It first reviews the learning styles of Asians. Second, it will review the literature on digital natives, especially the digital natives in Singapore. Third, it will review the Singapore education landscape and particularly, the examination culture and past projects conducted with ICT. Lastly, it will also examine the challenges in adopting IBDP. This literature has a profound impact on the viability

of the inclusion of technology in the curriculum. The search string used was: ("Asian learners" OR "memorisation" OR "schools") which generated a total of 203 articles. Other search terms also included digital natives and Singapore's examination system. Based on these articles, a content analysis was carried out, using article abstracts and publication information and papers were filtered with the following criteria: (a) definition of Asian students and their learning styles, (b) empirical research on digital natives, (c) Singapore examination system. Subsequently, a total of 130 papers were identified as applicable for this section of the review. The findings will help to address research question 3, particularly, the cultural and pedagogical considerations required for the effective design and implementation of a blended learning approach.

*2.1 Historical Overview: Adoption of the IBDP in Singapore*

This section of the review will first present a historical overview of IBDP and its place in Singapore. The introduction of the IBDP into the Singapore educational scene could be seen as a result of globalisation. Globalisation means that territorial boundaries are continually being eroded away, allowing for free movements between people, products, services and information. As Kumar (2013) observes, information technology and education help to ensure that "such movements are carried out" and consequently, "impacting … individuals, societies and nations" (p. 75). In landlocked Singapore, education is "a means of attracting and retaining talent" which, in turn, will help the "revenue potential of the economy" (Kumar, 2013, p. 76). In fact, Koh and Chong (2014) note that the city-state has adopted a *manufacturing* ideology since its independence fifty odd years ago. They define manufacturing as the "agentic role of the state in steering policies, resources, and ideological state apparatuses such as schools and government bodies toward a deterministic pathway about building its economy" (p. 626). Essentially, what this points to is a nation-state who needs to acknowledge and adapt to the demands of globalisation. Accordingly, schools are encouraged to incorporate "a spirit of innovation" (Tan, 2008, p. 118) and the adoption of the IBDP was one such move by the school reported in this study.

The adoption of IBDP could be seen as a strategic neo-liberal education initiative that expanded curriculum choices and a means of attracting international

enrolment and internationalisation of local curriculum. After all, the educational objectives of the IBDP is to construct a curriculum experience that allows for the development of international-mindedness of a student, meaning the ease in which a student would be able to traverse comfortably between different socio-cultural contexts and engage in global citizenship (Doherty & Shield, 2012; Lai et al., 2014). Moreover, international-mindedness will also help develop "moral and aesthetic dimensions" (Loh, 2012, p. 222) that would subsequently result in "intercultural understanding and respect, not as an alternative to cultural and national identity, but as an essential part of life in the 21st century" (ibo, 2014). According to IB, cultural hegemony is also accomplished through an IB learner profile that is woven into the entire IB curriculum (ibo, 2013a). It is through the ten learner profile attributes, promoting international-mindedness that will prevent erosion of their cultural identity (Hayden & Wong, 1997). Whilst on paper those education aims are laudable, it has been argued that they are economically-driven in that students view them, particularly intercultural awareness, as a pathway into top universities under the pretext of "'flexibility' in the knowledge economy" (Tarc, 2009, p. 109). As Bunnell (2011) concludes, it is a seemingly perfect example of "international schooling" (p. 172). This concurs with IBO reporting that there has been a 39.3% increase in the adoption of IB programmes in the last five years, thus, underscoring their increasing popularity. Within Singapore, the IBDP is not adopted by mainstream schools but rather by top elite, otherwise known as, independent schools. Independent schools were specially set up in 1987 to achieve as the then education minister, Dr Tan explains, "excellence in education" (as cited in Tan, 1993). Consequently, one of the attractions of adopting IB programmes is this international awareness or multiculturalism, an attribute which is highly regarded "by economists, businessmen and politicians … as a key resource to expand business in the global era" (Resnik, 2009, p. 238).

Thus, on the surface, the IBDP would appear to possess aspects of an international curriculum that addresses not only globalisation but also the needs of the twenty-first century learner – a global citizen (Belal, 2017). But there are limitations that need to be addressed. One of the predominant limitations is precisely what makes IB so attractive – that of international-mindedness. The creation of

international awareness through IB programmes are not often well-defined (Hayden & Wong, 1997). After all, international-mindedness is not exclusive to the schooling environment and as Haywood (2007) observes, it is "a multifaceted entity that can be represented in a wide variety of practical forms" (p. 81), including outside-of-school encounters. Consequently, international-mindedness goes beyond classroom teaching and instead, students' understanding needs to be realised through both school and non-school encounters (Cause, 2011). Lineham (2013) also observes similar findings in his case study. He found that it was difficult to examine the influence of IBDP curriculum on "student values", particularly, when "existing school ethos and international diversity" of both students and staff add to the complexity. Conner (2008) both disagrees and agrees. He argues that the universality of IB's design allows IB programmes to be adopted without concerns of any "particular national conception of education" (p. 346). However, like Lineham, he agrees that there are existing paradoxes within the IB. For example, he notes that IB's attempt to negate cultural differences by "offering a universally acceptable standard of education … [whilst] it honours distinctive cultural traditions and 'ways of knowing'" (p. 347) as problematic because the IB curriculum and assessments are intended on providing for all students regardless of their cultural contexts. Yet, these very IB assessments require students to display an understanding of "how culture influences and impinges on knowledge production" (p. 347), thus, underscoring a "complex educational programme" (p. 347).

The challenges that confront the implementation of IBDP within a local system is not one that could be easily dismissed as universal and whilst the focus of this study is not specifically on international-mindedness, the values are implicit in the teaching of any IBDP subject. Accordingly, it is necessary that such values are borne in mind in the teaching and learning of the LangLit.

### *2.1.1 Limitations of the IBDP*

Students' understanding of multiculturalism could be rather limited and superficial (Resnik, 2008). Moreover, critics have also highlighted that this seeming creation of international awareness in the IBDP can be rather awkward. The global-local dynamics involved in adopting a foreign programme can be rather problematic

(see studies by Bunnell, 2008; Doherty, 2013; Doherty & Shield, 2012; Guy & Switzer, 2010; Hayden & Wong, 1997; Lai et al., 2014; Resnik, 2009; Wright & Lee, 2014a, 2014b). Furthermore, as Bunnell (2011) cautions, IBDP is not a programme for the mass consumers. He argues that IB is treading on dangerous grounds where it is "becoming a status symbol and powerful 'brand'", meaning that it is inadvertently, creating "a route for elites to pursue individualistic economic advantage beyond … that of social interest" (p. 173). This is also compounded when schools "strategically exploit" the IB reputation to "attract … academically ambitious students" (Doherty & Shield, 2012, p. 438), thus, accentuating its exclusiveness. However, this is not a case where all schools could possibly adopt the IBDP because of IB's need to "retain its particular brand of distinction" and in order to do this successfully, they need to rely on this "implied promise of positional advantage," therefore, requiring a "condition of social scarcity" (Doherty, 2013, p. 395). The conundrum of wanting to appeal to the masses and yet, needing to be regarded as an exclusive "branded curriculum" (Doherty & Shield, 2012, p. 437) results in "moral and social implications" (Bunnell, 2011, p. 173).

In addition, the ten attributes of the learner profile (e.g. Inquirers, Knowledgeable, Thinkers, Communicators, Principled, Open-minded, Caring, Risk-takers, Balanced, Reflective) which IB emphasises are "both complex and deep, and places students at the centre of the conflict between their own cultural references and traditions and those of the Euro-American education they seek" (Starr, 2009, p. 120). To compound this complexity of the curriculum, the IBDP is also limited by the fact it is only a brief two-year programme. The limited time would mean that it would be challenging for students to share "a large variety of … undertakings and experiences" and failing which, "the influences which educate some into masters [may very well] educate others into slaves" (Dewey, 1916, p. 58). In short, the issues that plague a successful implementation of an IB programme meant that it is not only "curriculum and teachers [needing] to work in tandem" (Lineham, 2013, p. 274), but there must be explicit communication on the objectives and aims of the programme between teachers and students. As such, despite the careful design of the IB curriculum, it is not a case of just mere implementation but rather one where the constraints of the individual educational institutions, personal beliefs of the teachers, time, education

polices are real contending issues that need to be addressed.

Whilst these are genuine concerns at the systemic level, on the surface, given the Singapore MOE's stance on "centralisation-decentralisation" (Lee, Hung, & Teh, 2016, p. 60) in a bid for "greater innovation and variety" in schools (Teo, 2000, cited in Tan, 2008, p. 115), IBDP can be regarded as one such innovation. As such, cumbersome issues such as education policies and institutions are areas which, at this point, do not infringe on the scope of this study. Instead, this study aims to explore one of the disciplines required by the IBDP – LangLit could be better enhanced with a blended learning approach.

### *2.1.2 Pedagogical Underpinnings of IBDP*

This section reviews IB's documentation of teaching and learning approaches. IB released a documentation on learning approaches that expounded, at large, on the pedagogical principles that underpin the IBDP (see Li, 2012). The approaches to teaching were implicit and more recently, IB released a document "intended to clarify and make more explicit the approaches to teaching and learning" (ibo, 2015, p. 1). The continual revision on both the teaching and learning approaches displays IB's concerns with ensuring that the pedagogical aims of the programme are updated to the demands of the twenty-first century learners. The teaching and learning approaches have been introduced as separate entities in the 2015 IB document and presented in distinct categories. However, as IB admits, they should be regarded as "interrelated" (ibo, 2015, p. 3). Accordingly, both approaches are incorporated together in Table 1 and categories are matched to provide a more synergistic overview of these pedagogical underpinnings. More importantly, the pairing of the teaching approach(es) to the corresponding learning approach(es) are done as a suggestion and are, by no means, limited to each other.

Table 1. Mapping of Learning Objectives to Teaching Approaches

| Learning Approaches | Teaching Approaches |
|---|---|
| **Thinking Skills**<br>• Reflection<br>• Higher Order thinking skills (e.g. critical and creative) | Teaching based on **inquiry**<br>• Experiential Learning<br>• Problem-based Learning<br><br>Teaching focused on **conceptual understanding**<br>• Anderson and Krathwohl (2001) updated Bloom's taxonomy |
| **Communication Skills**<br>• Functional language (i.e. Halliday)<br>• Contexualisation of learning<br>• Open-ended questions | Teaching in local and global **contexts**<br>• Claxton (2008) grounding learning in real-life contexts |
| **Social Skills**<br>• Collaboration | Teaching focused on **effective teamwork and collaboration**<br>• Vygotsky and Piaget collaborative learning |
| **Self-Management Skills**<br>• Organisation skills<br>• Affective self-management<br>  ○ Resilience<br>  ○ Self-motivation<br>  ○ Mindfulness | Teaching informed by **formative and summative assessment**<br><br>Teaching **differentiated to meet the needs of all learners**<br>• Differentiation |
| **Research Skills**<br>• Research and information literacy | Teaching based on **inquiry**<br>• Experiential Learning<br>• Problem-based Learning |

For example, in order for students to engage in higher-order thinking skills and reflection, one of the more common teaching approaches that could possibly aid this process would be *teaching by inquiry*. A problem could be introduced to the students and elicitation via the revised Bloom's taxonomy could possibly test students' *conceptual understanding*. However, to achieve this, students may draw on *communication skills* and *social* skills when working in groups to further engage with the problem at hand. In addition, they may also employ *research skills* to conduct research to solve the problem. *Self-management skills* are most likely implicit in the completion of the task, dependent on whether it is formative or summative assessment. What this has shown is that these approaches are not linear but rather could be drawn upon based on the given lesson objective. More importantly, they are interrelated and need to be employed accordingly.

Interestingly, in response to the twenty-first century learners, research skills are now being placed in a category of their own. As IB observes, the independent learning that students engage in involves elements of "internet-based research" and

hence, is “fast becoming the most important information source” (ibo, 2015, p. 13). Consequently, they need to be provided with what Bates (2002) categorises as *browsing*, *search*, *being aware* and *monitoring* skills. What remains as a core learning and teaching pedagogy is that of collaborative learning. Despite the guises that it undergoes *as inquiry-based* learning, *communication* and/or *social*, the manner in which these skills are taught and learnt is closely related to collaborative learning strategies. More importantly, the additional emphasis on research skills also allows for a more organic introduction of a blended learning approach, particularly for students who are novices to such an approach. Such an emphasis could also inadvertently help to encourage students’ *buy*-in and subsesquent participation in the online activities. This coud also prove to be useful for students who may be initially sceptical on the use of a blended learning approach in an examination-focused education context. All of which will further inform both the literature and the first and third aim of this study.

In summary, the examination of these pedagogical underpinnings of the IBDP is necessary and significant, particularly, to the context of this study. The overview of this literature will not only inform the design of the curriculum but also incorporate what appears to be two separated documents. For instance, the LangLit teaching guide (ibo, 2013b) simply delineates the IB learner profile, assessment objectives and syllabus outline whilst the teaching and learning approaches are presented in separate sections of the same document. As such, an understanding of these approaches would lend to a more in-depth exploration of English A which will further inform the current literature.

### *2.1.3 Overview of IBDP Language and Literature*

Central to the main aims of IB objectives is the nurturing and development of learners that are “inquiring, knowledgeable and caring,” all of which will “help to create a better and more peaceful world through intercultural understanding and respect” (ibo, 2014). As part of the Group 1 of the IB curriculum (ibo, 2013b), LangLit is a new course with its first examinations in 2013 and replaces the old Language A2 course in Group 2. The programme requires students to explore both literary and non-literary genres from a variety of sources, genres and media. Students are also exposed

to translated texts, thus, providing them with “access to literature from different cultures”, and more importantly, assisting them to “develop an appreciation of other cultures” (Lineham, 2013, pp. 265–266). Consequently, on the surface, LangLit seems an ideal international curriculum that subscribes to multiculturality, aspects in globalisation and cultural awareness.

In this relatively new subject, students engage in texts that “encourage … an appreciation of the different perspectives of people from other cultures, and how these perspectives construct meaning” (ibo, 2013b, p. 9). In fact, these chosen texts are deemed to possess “aesthetic qualities” (ibid) which students, especially twenty-first century learners, are expected to appreciate, together with their respective formal and stylistic elements. In short, English A (e.g. LangLit), a compulsory academic subject, forms part of IB culture in promoting it as a viable international educational programme. It essentially helps to prepare students for an “increasingly multicultural and globalised world” (Räsänen, 2007, cited in Lineham, 2013, p. 262). It is fairly obvious that the design of this curriculum inevitably encourages students to explore texts – both literary and non-literary – outside of their own sociocultural contexts. The focus of each of the assessment demands that students engage in a diversity of reading topics and demonstrate awareness of the social and cultural context in which a piece of work is situated. What this translates to is a concrete application of what IB aims for their twenty-first century learners – to be a global citizen where students can become a learner without borders or what IB often refers to as possessing “international-mindedness” (Davy, 2011). More recently, IB introduced the term “global engagement” (ibo, 2014), thereby, signalling a demand for more active participation and global awareness.

However, implementation of LangLit is also constrained by both the objectives and construct of the programme. For example, even as the programme allows for learners’ exposure to multiculturalism in the teaching of translated texts, these texts are drawn from prescribed lists. A closer examination of the list show that the focus is more on a “European-style syllabus” (Fox, 1985, p. 64) with exclusion of “more contemporary authors from young nations such as Mauritius and Singapore” (Loh,

2012, p. 225), thus, signalling a bias toward a westernised curriculum. Furthermore, the claims to the creation of international awareness through the curriculum can be problematic, particularly in the adoption of a foreign programme where global-local dynamics can prove to be challenging. One of such challenges, as Lai et al. (2014) observe, is that IB schools located in Asia pacific regions encounter a strong examination ethos and "greater attention may need to be paid to help schools and teachers confront the[se] challenges" (p. 93) which will be further elaborated upon in Section 2.3.3. Nonetheless, the issue of time together with the examination ethos, as mentioned earlier, is an area of concern. The stipulated teaching hours – 150 hours for standard level (SL) students and 240 hours for higher level (HL) students – over a period of two years meant that students would only engage with this subject for about 3 hours per week for SL and less than 5 hours per week for HL.

In summary, confronted with the pressure of assessment and the time constraint, it is not uncommon that teachers tend to focus on fulfilling the examination demands (Bent, 2009; Lai et al., 2014; Loh, 2012; Tamatea, 2008) than engage in multiculturality and cultural awareness. Consequently, the exploration of using blended learning in the teaching of LangLit could be a way of addressing the much-needed time and in turn, also offer further insights into students' experiences in their learning. This will also further inform both the literature and the first two research questions of this study.

### *2.2 What is Blended Learning?*

The popularity of blended learning has gained tremendous tract in this century. Scholars have noted that it is not only possibly the most touted term in the educational arena but could become the new teaching norm (see Norberg, Dziuban, & Moskal, 2011; Ross & Gage, 2006). However, there are yet others who have highlighted a fundamental problem with blended learning – its definition (Graham, 2013; Oliver & Trigwell, 2005; Sharpe et al., 2006). The ambiguity that shrouds this term has been challenging, particularly when academics stress that it is not simply an inclusion of technology in face-to-face classroom teaching. Oliver and Trigwell (2005) delineate the variations of blended learning, ranging from the mixing of e-learning with traditional

learning; mixing online learning with face-to-face; mixing of media; mixing contexts, mixing theories of learning, mixing learning objectives, and pedagogics. The characteristics that each of these imbue, underscore the complexity of blended learning (Bonk, Kim, & Zeng, 2006). More recently, McGee and Reis (2012) explore the different permutations of blended learning and propose that a more useful definition of blended learning should be one where the teacher and students work "together in mixed delivery modes" (p. 9). For example, it could be "face-to-face and technology mediated" with "learning outcomes that are pedagogically supported through assignments, activities and assessments," specific to a "given mode" and thus, making learning "meaningful" to the learner (ibid). Moskal, Dziuban and Hartman (2013) conclude that "blended learning has become an evolving, responsive and dynamic process" and "that in many respects is organic", thus, "defying all attempts at universal definition" (p. 16). As Garrison and Kanuka (2004) explain, blended learning can be "both simple and complex" (p. 96). It is not merely an addition of technology to face-to-face teaching but rather "a fundamental reconceptualization and reorganization of the teaching and learning dynamic", resulting in the building of a "community of inquiry" (Garrison & Kanuka, 2004, p. 97). For example, the literature on online discussions found that students, provided with opportunities for reflective thinking, do subsequently engage critically with their subject matter (Biesenbach-Lucas, 2003; Garrison & Kanuka, 2004; Hara, Bonk, & Angeli, 2000; Heidi, 2015; Wang & Chen, 2011; Wu & Hiltz, 2004; Yang et al., 2013). As Moskal, Dziuban and Hartman (2013) admit, blended learning has the "potential" to foster "a much more reflective student population" and "extend learning far beyond the boundaries of traditional classrooms" (p. 16). After all, the online platform allows for a construction of knowledge through social exchanges that occur in students' online discourse (Collison et al., 2000; Garrison, Anderson, & Archer, 2001).

However, as Garrison and Kanuka (2004) explain, no blended learning design is identical. Oliver and Trigwell (2005) concur and recommend the use of variation theory in the design and implementation of blended curriculum. By that, they stress that the key to blended learning is not "a blend of media" but rather it is the attempt made to construct an experience which allow for "critical patterns of variation" in the

teaching of a particular topic (p. 23). In sum, blended learning is about "rethinking and redesigning the teaching and learning relationship" (Garrison & Kanuka, 2004, p. 99). Šafranj (2013) agrees and observes that blended learning does increase opportunities for "greater quality and quantity of human interaction in a learning environment" (p. 515). Within this context of blended learning, it is also necessary to address collaborative learning as a critical component where students engage in active learning collaboratively, often in groupwork. This is also what Dillenbourg, Jarvela and Fischer (2009) define as the third age (since 2005) in the evolution of Computer-supported collaborative learning (CSCL) research. They claim that CSCL is no longer "a distinct pedagogical approach" and instead "collaborative activities" are "integrated within comprehensive environments that include non-collaborative activities" (p. 4). Additionally, these activities extend over both "digital and physical spaces" where "the teacher orchestrates multiple activities with multiple tools" (ibid). As So and Bonk (2010) explain, "technology such as computers can play a critical role to support or mediate the interactive process of collaborative meaning making in the context of joint activities involving multiple users and multiple modes of interaction" (p. 190). More importantly, one of the key objectives is not to supplant face-to-face interaction but instead, enrich it by "providing more resources for learning" (ibid). After all, as Vesisenaho et al. (2010) recommend, it is now *Blended Learning 2.*0 where there should be "thoughtful integration", meaning that there should be a stress on "students' active and collaborative role, i.e. drawing on the theories of collaborative learning" (p. 281). The literature on collaborative learning in a blended learning environment draws its tenets from Vygotsky's (1978) social constructivism, emphasising collaborative work on online platforms in a bid to "create new knowledge … authentically" (Monteiro & Morrison, 2014, p. 565). The positive gains that students can glean from social interaction in learning (see Dillenbourg, Jarvela, & Fischer, 2009; Dillenbourg, 1999; Duque et al., 2015; Medina, Gómez-pérez, & Nieto-reyes, 2013; Schellens & Valcke, 2006) suggest that this could be "keeping with the needs of the 'information society' in which cooperative relationships, shared decisions, diversity and communication are becoming the dominant values" (Gros, 2001b, p. 439). In short, research undertaken in CSCL examine the ways in which technology could be better employed to engage students in working actively and collaboratively co-constructing

their learning and skills (Baker, Bernard, & Dumez-Féroc, 2012; Dillenbourg et al., 2009).

This study's use of blended learning adheres to what Garrison and Kanuka (2004) denote as offering opportunities to engage in a community of inquiry. As they explain, blended learning allows for learning in conditions that includes a "reflective element" through "multiple forms of communication to meet specific learning requirements" (p. 97). Accordingly, the initial face-to-face class discussions could help to first, foster and develop a community. Second, the reflection on complex issues done via asynchronous Internet discussion forums could contribute to this community of inquiry, albeit, through an online platform (ibid). Thus, one of the aims of this study is to provide scaffolded opportunities for students to engage in independent learning and critical thinking when constructing meaning and understanding. Whilst there have been many studies that have adopted blended learning, to date none has reported the use of blended learning in IBDP LangLit programme. Consequently, this DBR study adopted a blended collaborative learning model that integrates both face-to-face discussion and learning with CSCL with the objective of drawing on the objectives of the online learning as a complement to students' learning within the classroom. More importantly, it draws on Garrison and Kanuka's (2004) suggestion in creating a learning environment where the dynamics of both teaching and learning are *reconceptualised* and *reorganised*. This would also help to foster a two-way interaction between teacher and students and negate concerns that online activities are treated as *add-ons*.

### *2.2.1 Blended Learning and Asian Learners*

Academics in cross-cultural studies note that there are not only clear differences in the way people learn (Brislin, Bochner, & Lonner, 1975) but also different learning models (Li, 2002). Thus, there is a need to ensure that online learning has been designed to fit the culture of the learners. As Bruner (1996) explains, culture "shapes the minds of individuals … [and] provides the tools for organising and understanding … [the] worlds in communicable ways" (p. 3). Essentially, culture also affects the way teaching and learning is conducted. As Lim (2004) observes, studies on online technologies tend to focus on learning motivation. After all, not all students

learn in the same way and the manner in which they approach and process learning are varied. This can range from a preference for visual displays, verbal explanations, constant feedback and even preferring to work in a group or as an individual. East Asian learners have generally been classified as favouring a transmission model where the roles of teacher and learners are clearly defined. Consequently, the teacher-centred classroom approach with the teacher as the authority figure and reticent passive Asian learners cannot be ignored (see Chan, 1999; Cortazzi & Li, 1996; Flowerdew & Miller, 1995; Jones, 1999; Littlewood, 1999; Wachob, 2000). Both Rao (2002) and Strother (2003) summarise the learning styles and advocate an adoption of learning styles that would best suit Asian learners as shown in the following table.

Table 2. Learning Style and Recommendations

| Learning Style (Rao, 2002) | Recommendations (Strother, 2003) |
|---|---|
| **Introverted** | Explaining of reasons in implementing group work. Design a number of activities that allows for group work and/or individual work. |
| **Closure-oriented** | Online activities allow students to work at their own pace and to decide to work in a group or as an individual. |
| **Analytic and field-independent** | Concrete factual questions asked in a variety of activity ways, thus allowing for a deconstruction and logical analysis of the course content. Both online and f2f feedback needs to specific. |
| **Visual** | Visual and also allowing for text only interface where students can download included graphics and refer to them when needed. Visual and verbal delivery of knowledge. |
| **Thinking-oriented and reflective** | Working in cooperative learning tasks that allow for a strengthening of verbal communication skills. |
| **Concrete-sequential** | Logical flow of individual activities and topics need to be made explicit. |

As Strother (2003) recommends, in considering an online learning design for Asian learners, it would be best to create a flexible programme that accommodates a particular group's needs. More importantly, they should be given a choice of which activities to provide or rather to "sequence activities … [that] better fit their preferences" (p. 356). These recommendations are useful in considering the design of the blended learning curriculum as reported in this study.

### *2.2.2 Blended Learning in Singapore*

In 2002, the MOE funded research centre (i.e. *Centre for Research in Pedagogy and Practice*) was set up to engage in research that would develop and implement innovative ways of teaching and learning to better address the challenges of the twenty-first century. With the introduction of this research centre and subsequent set-ups of more research centres (e.g. *Learning Sciences Laboratory*, *Office of Education*

*Research*), there has been a proliferation of intervention projects after a nationwide study was conducted to understand the learning landscape in Singapore (Luke et al., 2005). A search through the overarching research arm, Office of Education Research's public web domain on ICT projects using the search string (e.g. "ICT", "IT", etc.), identified 37 such projects. All of these show that the educational landscape is changing to one that is beginning to focus on innovation and use of technology in classrooms. But this move is not void of challenges. For example, Tan et al. (2010) observe that though teachers tried to use ICT in collaborative and self-directed learning, both teachers and students were confused with the definition of self-directed learning. Teachers shared that including ICT in the classroom was not only time-intensive, but that there was insufficient class time to carry out a meaningful lesson. More importantly, ICT was not even required in the examinations (Tan et al., 2010). This once again reiterates the place of ICT in high-stakes examination culture and from the findings reported, ICT adoption takes second place to national examinations.

The ICT-related projects that have been conducted are generally testbeds with small sample sizes. Whilst most have scalability potential, these have not resulted in any large-scale projects. As Ho, Nelson and Müeller-Wittig (2011) report, their study which examines the integration of a virtual museum into the curricula was "limited to intervention … that involved a specific, relatively small community of learners and teachers" (p. 1094). Yet, other studies found that teachers were hampered by their back history on pedagogical practices in the classroom (see Keating & Evans, 2001; So & Kim, 2009; So et al., 2012). One of the possible reasons was a potential disconnect between the use of computers for personal and pedagogical purposes (So et al., 2012). To address this, Choy (2013) recommends using a iTEaCH (ICT-Technogogy and-Collegiality Holistic) Implementation Model to facilitate teachers' pedagogical preferences in relation to existing technology and infrastructure support. But he also notes that there are obstacles that arose from "habitus … and teacher resistance" (p. 290). In short, as Jacobson et al. (2010) warn, it is a pervasive systemic problem because schools are still fixated on "paper and pencil traditional high-stakes examinations," resulting in "transmissionist pedagogies" used (p. 1705). Tham and

Tham (2011) agree in their study that examined blended learning in China, Korea, Japan and Singapore. One of the predominant problems reported was a reproduction of the "functionality and 'look and feel' of the existing classroom materials in a new operating system" (p. 138). Yet in another study by Menkhoff, Thang and Wong (2007) which found that whilst students enjoyed the flexibility, availability of the e-content, the organisation and structure and the system's ability to remember their last login, they highlighted the following as problematic:

- Lack of two-way interaction between students and teaching staff;
- Lack of communication facilities for user interactions and discussion;
- The learning content lacked depth;
- The learning process lacked fun and competition, e.g. 'game style' learning supported by animation and multimedia; and
- Absence of feedback on review questions and case study questions (Menkhoff et al., 2007, cited in Tham & Tham, 2011, p. 138).

Of particular interest in what students found problematic were unsurprisingly, related to guidance from the facilitator because the feedback was instrumental for their assessment. This stresses the ubiquitous academic performativity culture that permeates the Singapore education context. Clearly, measures were taken to urge and even actively introduce the integration of ICT into the curriculum. However, the initial well-meaning objectives and implied outcomes are often diluted by high-stakes examinations, resulting in lacklustre and sporadic uptake of ICT in schools.

What is underscored is the complexity involved in implementing ICT in schools. After all, the implementation of an ICT reform would require "an understanding of the subject, pedagogy, and the affordances of ICT for both the subject and the pedagogy" (Person, 2001, cited in Chen, 2013, p. 309). This is not unique to Singapore as seen from a large-scale study conducted by Rizvi et al. (2014) on the use of ICT in the IBDP United Kingdom (UK). They found that while ICT did enhance student understanding, there were clear constraints such as time. In Singapore, research studies on e-learning have also emphasised problems with cross-cultural learning. Fang (2007) found that whilst Singapore students did enjoy their online learning experiences, they were also heavily influenced by different cultures. For example, because of the Asian and

academic performativity cultures, students tend to place a greater emphasis on teacher feedback and disregard peer feedback. In addition, though students appear to enjoy chatting online, this is regarded as a social activity and "disassociate[d] … with serious work" (p. 249). Fang (2007) also found that students were generally reticent online and preferred to first, "communicate with their inner groups" and second, to bond with others in a physical setting (p. 250). Likewise, these findings were also reported by Ang (2015a, 2015b) on students' perceptions of ICT in their IBDP English A curriculum.

In summary, there is relatively little research on the use of blended learning in Singapore schools, particularly in IBDP. Interestingly, there are also few empirical studies that have been conducted on the use of blended learning as an approach in the teaching of IBDP, especially in the teaching of LangLit. Admittedly, one possible reason could be that this subject was introduced only in 2012 with its first examinations conducted in 2013. Consequently, this study aims to fill the gap in firstly, the use of blended learning as an approach in IBDP and secondly, in the area of English A: LangLit and finally, in blended learning within the Singapore educational context.

### *2.3 The Singapore Context*

One of the key areas of this study is understanding the students' experiences of blended learning and to observe the important aspects needed in any effective implementation. It is necessary, therefore, to first examine the literature on Asian students and the technological knowledge age in which they are born. Given that these students are all born digital natives meant that that is an important aspect that needs to be taken into consideration. Second, it is also vital to explore the Singapore educational context of these students and the resulting challenges.

#### *2.3.1 Asian Students' Learning Styles*

Asian students are well-regarded as rote-learners. The plethora of literature on Asian learners have found that these learners typically employ rote learning in their studies. Nonetheless, it is necessary to highlight that rote learning is associated with memorising or what the western educational context defines as a repetition of

previously taught facts. This is met with general disapproval because it is “an indicator of shallowness in learning” (Purdie & Hattie, 2002, p. 18), separated from the notion of understanding and subsequently, viewed as less helpful in cultivating deep understanding.

But it would indeed be problematic to dismiss Asian learners as simply rote learners because of a learning environment that is generally imbued with “expository teaching” (Baumgart & Halse, 1999, p. 322) and low-level cognitive assessment tasks (Biggs, 1996), all of which “negatively correlat[e] with achievement” (Marton & Booth, 1997, p. 24). Studies that have examined these Asian learners observe that there is a distinct difference between the western educational view of rote learning where memorisation and understanding are seen as unrelated components and the Asian educational view where they conversely regard these two components as related (Baumgart & Halse, 1999; Biggs, 1991, 1996; Chang & Ho, 1992; Cheng, 2000; Kember & Gow, 1991; Lai & Murray, 2012; Marton, Dall’ Alba, & Tse, 1993; Marton & Säljö, 2005; Marton, Wen, & Wong, 2005; Marton, Watkins, & Tang, 1997; Mathias, Bruce, & Newton, 2013; Watkins, Regmi, & Astilla, 1991; Watkins & Biggs, 2001; Watkins & Ismail, 1994). Research studies seem to suggest that Asian learners tend to employ deep level learning strategies. Owing perhaps to the Confucian influence, the notion of memorisation includes “memorisation with understanding, and thinking built upon a firm knowledge base”, meaning it is a strategy that Chinese students use to “achieve deep understanding, logical thinking, and strong application” (Tan, 2015, pp. 436–437). This is not unlike earlier findings as reported by Watkins and Ismail (1994) who found that Asian learners do engage in deep level learning strategies as compared to their Western counterparts. In fact, Sadler-smith and Tsang (1998) report that there were no major differences between Hong Kong (HK) and UK students because there were no “strong links between a deep approach and academic performance” (p. 92).

Nonetheless, regardless of whether there are merits or culturally influenced learning strategies, Asian students are more than capable of engaging in deep level learning strategies but on the pretext that they are academically stronger (Biggs, 1991; Lai & Murray, 2012; Watkins et al., 1991; Watkins & Biggs, 2001). In the Singapore

context, Chang and Ho (1992) discovered that it is the academically strong students that tend to adopt *deep* approaches in their learning and the converse occurs for the academically weaker students. These academically weaker students are "more performance-oriented rather than learning-oriented" (p. 51) and thus, tend to adopt more *surface* learning approaches. The paradox of Asian learners and the seeming incongruence between memorisation and deep level learning approaches is one that has been explored at length and as Marton et al. (1997) explain, can be attributed to the cultural definition of memorisation. As mentioned earlier, for Chinese learners, memorisation and understanding are not only interrelated but also a part of a "normal practice" (p. 25). This corresponds with what Wong and Wen (2001) later observe about first-year college students, who when asked to reflect on the use of memorisation in their learning, could distinguish between *mechanical memorising* and *memorising with understanding* (as cited in Cheng & Wan, 2016). However, more recently, there have been studies that reported a narrowing of this gap, especially if "academic values in different cultural systems" are taken into account (Ryan, 2016, pp. 20–21). Consequently, the exploration of this gap in the Singapore educational context, which is caught between "western and Asian pedagogies" (Lee et al., 2016, p. 60), could provide further insights into students' learning experiences and further inform the second aim of this study.

### *2.3.2 Digital Natives in the Singapore Context*

The twenty-first century, also known as the beginning of the digital age, heralded a world of technology with cyber-structures such as computing systems, networking and information resources. Consequently, there is a plethora of literature on this generation of digital natives. The definition of these digital natives claims that they possess fluency in the digital language (Frand, 2000). Others have also observed their need to remain in constant connectivity (McNeely, 2005; Tapscott, 2009; Windham, 2005). In short, it is assumed that digital natives possess inherent knowledge and skills to manipulate ICT tools in a "natural way" (Šorgo et al., 2017, p. 750). In other words, they not only can leverage on technological tools but also navigate the digital language. Nonetheless, there are also other researchers who have questioned the veracity of these digital natives' digital literacy. As Šorgo et al. (2017)

observe, educators cannot rely on “information competencies” learnt in formal or informal schooling because even if students are able to use the machinery (i.e. computers), it does not necessarily correspond with “better information literacy” (p. 762). Selwyn (2009) notes that these digital natives’ use of internet can best be described as a “passive consumption of knowledge rather than the active creation of content” (as cited in Svinicki, 2017). This has indeed come a long way from Prensky’s description of them as *digital natives* or the *net generation* in 2001 and *i-kids* in 2008. He compiled a list of supposed characteristics, ranging from speaking “an entirely new language” (Prensky, 2001b, p. 2) to expectations for instant access to information, short attention span in passive forms of learning (e.g. lectures), preference for pictures rather than text and processing information in non-linear ways. Others have contributed to the list and found that these students appear to “expect technology to be an integral part of their education” (Waycott et al., 2010, p. 1202). However, despite this, Kennedy et al. (2007; 2008) realise that these digital natives may not necessarily engage in Web 2.0 services (e.g. podcast, wikis, blogs, social networking, etc.) in their learning. Tapscott (2009) agrees and adds that these students prefer speed and enjoy a mix between work and play.

Following the advent of Prensky’s (2001) study, there were also studies that reported contrary findings. Kennedy et al. (2010) notice that there were four types of technology users: p*ower, ordinary, irregular* and *basic* users (p. 339). Unexpectedly, they found that *power users* were a minority and most of the students were *basic users*, thus, confirming Kennedy’s (2007) earlier findings that it would be dangerous to presume that all digital natives are homogenous in their technological use. In fact, he highlights that there is a “potential ‘digital divide’” (Kennedy et al., 2008, p. 117), even within the same cohort of students. What this underscores are not concerns for what Prensky (2001) cautions as the seeming lack of technological literacy of educators but that of the digital natives. In short, they may not necessarily be as digitally literate as previously assumed. Similarly, Li and Ranieri (2010) concur and found that though ninth-grade teenagers access technological tools such as computers and the Internet, these actions do not necessarily translate into digital literacy. In fact, there are

students who allegedly hurry through given tasks and expect results from just a single click of a mouse (as cited in Neumann, 2016).

There was also research that acted on Prensky's (2001) observations and explored the digital divides between teachers and students. Interestingly, they have found the gap between these digital immigrants and natives to be minimal. In fact, Waycott et al. (2010) caution that it would be too "simplistic to portray staff as resistant to using new technologies" or that students "likely to embrace them" (p. 1209). They further argue that "there was no evidence to suggest" students' preference for an "increased use of technology" in classrooms (ibid). Instead, students have indicated that technological tools were used only if a given task demands it. This is even though more than half of them do access the Internet on a daily basis either for formal or informal learning purposes. Margaryan, Littlejohn, and Vojt (2011) agree and add that there was no evidence highlighting students' desire for "radically different learning styles" and that students instead, displayed a preference for guidance from lecturers" (p. 438). Ng (2012), too, observes that though these digital natives were able to leverage on the technological tools easily, their learning objectives were still focused on academic performativity. They did not show a keen interest in needing technology for classroom learning. Such focus on academic performativity is also reported by Ben-David Kolikant (2012) where she found that students indicated a preference for the conventional role of teachers and ICT is regarded as "an enrichment activity" (p. 912). Likewise, Thompson's (2013) survey on the fundamental construct of digital native learners observed that these first-year undergraduate students did not necessarily leverage on the appropriate technological tools in their learning. Rather, they employed "varied and complex" (p. 23) approaches. However, in a more recent study, Thompson (2015) found that digital natives, despite "competing demands of technology, their social world", were capable of "being active agents" in making the necessary decisions in their academic studies (p. 481). Moreover, these students repudiate assumptions that they were "passive subjects being acted on by the force of technology" (ibid).

Wang et al. (2014) concur and found that “the disconnect between students’ use of technology … does not seem to be caused by the difference in technology skills between … students and teachers” (p. 655). Instead, they argue that it would be important to provide “guidance … [on] how to use these technologies to solve sophisticated cognitive problems” (p. 656). Neumann (2016) agrees and notes that though there are advantages to the use of technology, the challenges for educators remain, especially, in this twenty-first century environment. In sum, educators will need to carefully curate an “appropriate learning environment” where there is “application of best practices and technolog[ical]” uses (p. 105).

Similarly, in Singapore, to address the twenty-first century demands, the government set up the Infocomm Development Authority (IDA) in 1999 and more recently, in 2016, they have restructured it to Infocomm Media Development Authority. Previously, the IDA was responsible for developing information technology and telecommunications, thus, aiming to create world-class global knowledge through the creation of an Infocomm ecosystem. The integration of the media sector will help to, as the chairman of the Infocomm Media Masterplan Steering Committee, Mr Koh Boon Hwee says, “foster a cohesive society in the midst of globalisation” (Kwang, 2017, para. 3). Dr Yaacob Ibrahim, Minister for Communications and Information, rationalises that “the move to restructure the two regulators will help Singapore to stay ahead and prepare for the future” (Kwang, 2017). This need to stay ahead in preparation for the future is echoed by the education ministry. The MOE espouses similar rhetoric by implementing the initial three ICT Masterplans over a period of six years with Masterplan 3 completed in 2014 (MOE, 2008). Following, Masterplan 4 (2015-present) saw the implementation of an online learning space with resources created specifically for teachers and students in 2016. One of the key functions of this online portal provides a dialogic space for educators to share their best innovative ICT practices. All these testify to the government’s goal of outfitting Singaporeans with the necessary twenty-first century learning skills through the use of technology (MOE, 2010). With the launch of the online learning portal for teachers in 2016 and students in 2017 (Yang, 2017), the MOE signals a strong alignment with not only the demands of the twenty-first century but also a call for a pragmatic integration of ICT into the

curriculum. Consequently, this has resulted in a blossoming of ICT-related research projects and initiatives targeting classroom learning.

In short, the literature on digital natives do show that they do not always expect nor want technology in their learning because they do not see a correlation between the use of technology to their assessments. Accordingly, this study, taking the assessments into account, aims to examine the digital natives reported in this study and their learning experiences of the blended learning approach.

### *2.3.3 Singapore Education Landscape*

As mentioned earlier in Section 2.1, Singapore's tiny geographical size and lack of natural resources has in some ways dictated the educational landscape. The advent of the twenty-first century brought about an age of technological knowledge and globalisation. As a result, in response to the demands of globalisation, a refinement of the educational systems was in order. The Singapore government which had from her past, used education to propel the country through economic growth, adopted neo-liberal education forms intended to decentralise education through a diversification of "educational pathways" (Ng, 2010, p. 288). However, despite a rise of neo-liberalism that should, in theory, weaken state control, this did not happen in the Singapore education context. Instead, because of the strong economic and social control of the Singapore government (Gopinathan & Lee, 2011), it became "an avid but selective borrower" (Gopinathan, 2001, p. 31). Consequently, this resulted in a further refinement of the Singapore education landscape where one of the *centralised decentralised* strategies was to allow non-mainstream programmes to be adopted by schools (Ng, 2007). One of these programmes is as described in this current study; the Geneva-born IBDP. As explained earlier in Section 2.1, this programme has seen a formidable worldwide growth and currently has more than four thousand world schools. Programmes within the IB have indeed developed as a rather impressive "by-product of globalisation in an educational context (Bunnell, 2010, p. 352).

However, though allowances were made in the adoption of varying programmes in school such as the IBDP, specialised schools in sports, arts, etc., the

MOE retained its stronghold on these schools through the guise of academic performativity. In short, creating a "paradox within deregulation and regulation" (Tan, 2008, p. 118) in the Singapore education arena. Nevertheless, this is not indicative of a weak nation-state that has ceded to neo-liberal discourse but rather, it is reflective of a strong interventionist state well aware of and attempting to address the challenges of globalisation (Tan, 2009; Tan & Ng, 2007). The highly competitive environment is not exclusive to Singapore as seen from its Asian counterparts (e.g. Hong Kong, Japan, Korea, Taiwan, Vietnam and China). Perhaps as Marginson (2011) observes, it could be the influence of the Confucian system which "frames the examination system" (p. 607), and thus, resulting in a highly competitive academic environment. Within Singapore, the creation of a large tuition market (Nirmala, 2013; Siau, 2013) has morphed from a recourse for academically weak students requiring extra help to providing academically strong students with competitive edges (Davie, 2015; Ong, 2016; Tan, 2014; Varma, 2016). The change has even alarmed Members of Parliament that they have formally raised the issue during Parliament. They felt that the reliance on tuition would create a generation of students who are incapable of self-directed learning (Philomin, 2015). Cheo and Quah (2005) too report that tuition did not procure corresponding results. They caution that excessive studying in one subject would mean a reduction of time spent in another, hence, resulting in a lacklustre overall academic performance. Nonetheless, the dominant tuition culture meant that parents were willing to spend what is often an astronomical amount on their child's studies, thus, underlining the importance of academic performativity in highly competitive Singapore education.

This meritocratic system in Singapore will continue to demand a production of academic results. After all, the only resource available to this nation-state is her people. Hence, MOE is continually refining their policies to equip students with "critical competences", all in a bid to provide opportunities for them "to succeed in a knowledge economy" (MOE, 2008). Subsequently, there has been an increasingly call for inclusion on the use of technological tools in classrooms (Khamid, 2016; Yang, 2016). However, this movement toward ICT-infused curriculum is not without its challenges as previously discussed in Section 2.2.2. In addition, as with any innovation

adoption, there are also challenges in terms of *time management* where the juxtaposition of the demands of the curriculum and actual classroom time is found to be lacking. Furthermore, in research projects that require work with teachers, additional challenges relating to *teachers' mindset* and *buy in* could be problematic. Consequently, projects often report embryonic or dismal findings simply because they face sustainability and scalability challenges (Albright et al., 2009; Ang, 2014, 2015a, 2015b; Choy, 2013; Ho, Nelson, & Müeller-Wittig, 2011; So et al., 2012; So & Kim, 2009; Tan et al., 2010; Tham & Tham, 2011). As such, it is necessary to acknowledge these challenges that confront the adoption of new innovations into the local education system.

### *2.3 Chapter Conclusion*

The literature reviewed in this chapter examined the construct of IBDP, blended learning and the Singapore context to help provide a background in which this study is situated. The reviewed literature does not only highlight recent studies conducted but also included a purview of existing local research. The sections in this chapter inform the three main questions of this study in the following ways:

1. The historical overview of the IB presents the viability of it as an international curriculum but admittedly one that is not devoid of constraints and hence, there needs to be a careful consideration of key factors in the implementation of the IBDP.
2. The literature review summarises and considers IB's current documentation of both teaching and learning approaches. Mapping both approaches provide a more synergistic view that serves as a useful background for the design of the curriculum reported in this study.
3. The review of the LangLit programme found that there is currently no literature beyond that of IB guides. However, studies that have been previously conducted on IBDP on the whole underscores issues relating to time and culture (i.e. strong examination culture) that would prove to be useful as background information in the design and implementation of the curriculum.
4. The broad overview of the definitions of blended learning highlights that the permutations that makes up blended learning can be very complex and more

importantly, no one design is identical. The common denominator appears to be collaborative learning which this study draws on. The review of collaborative learning in East Asian learners reveals that learning approaches for Asian learners need to be considered, particularly, in the area of academic performativity, which helps to provide a more holistic picture in the planning and design of the curriculum.

5. The literature review also examines studies conducted in the Singapore context and looks at the current literature on ICT-related projects. This review highlights the gap in the literature in relation to the use of blended learning in the LangLit classroom.
6. The review in Asian students' learner styles highlights the paradox between Asian learners and the critical thinking that IBDP demands. This gap could be further explored in the implementation of this study.
7. The literature review summarises and explores the make-up of digital natives. The review also examines studies that have been conducted on these digital natives and observes the gap between the digital natives' use and demand of technology in their learning. This provides a useful background for understanding the students reported in this study.
8. The review also examines the Singapore educational landscape and explores the challenges that could potentially limit the effective implementation of an innovation (i.e. blended learning).

## Chapter 3: Methodology

### *3.1 Research Purpose and Questions*

This current study adopts design-based research (DBR) to examine blended learning within an IBDP English A classroom in Singapore. The research questions are as follows:

1. What are the ways in which a blended learning approach can be implemented in the IBDP English A classroom?
2. What are students' experiences of the blended learning approach and their perception on the effectiveness of this approach for their learning?
3. What are the important aspects that need to be taken into account in the effective design and implementation of a blended learning approach in this specific educational context of Singapore?
    a. What are the cultural considerations?
    b. What are the pedagogical considerations?
    c. What are the technological considerations?

### *3.2 Research Design*

#### *3.2.1 Research Site*

The research site is situated in one of the top academic performing schools in Singapore. Its IBDP ranks as one of the top schools in the world. Since its adoption of the programme, it has consistently accounted for half of the perfect scorers in the world. In 2016, it produced 41 out of 81 perfect scorers in the IB examination (Teng, 2016). Its status as an independent school meant an enjoyment of autonomy in the implementation of an innovative curriculum whilst adhering to the MOE's main educational goals and policies. More specifically, one of the recent calls is the inclusion of technology into the curriculum. However, this does not mean that schools are adopting technology actively into their curricula. Accordingly, within this research site, the participants are clearly more comfortable with a more traditional didactic teaching methodology. As such, the purpose of this study aims to introduce a blended approach to learning where students are exposed to new learning experiences that are more learner-directed and collaborative in both face-to-face and online contexts. The rationale for the online learning tasks complements the face-to-face teaching in the

classroom and is aimed at helping students deal with an issue discussed in class. The learning tasks used are as follows:

1. The online task (e.g. online forum, wiki, blog, GoogleDocs, etc.) allow students, through collaboration and discussion, to conceptualise and understand the topic on hand.
2. Guidelines on how tasks are to be addressed are given.
3. Both formative and summative assessment exercises may take the form of oral feedback or detailed commentary on the exercise done.

These learning tasks that form part of the blended learning curriculum draws on Reeves' (2006) design model (see Section 3.2.4) and is presented in detail in Chapter 4.

### *3.2.2 Research Participants*

In identifying the research participants, this study employed a convenience sampling technique where participants were selected based on both class, online participation and formal written work. The students chosen in this study were from two different classes; HL and SL. A pre- and post- questionnaire was administered to 13 HL and 26 SL students from the two classes taught by the researcher (see Appendix 6). The participants were grouped according to their academic performance in their written assignments and class discussions in the first term. The student-participant profiles are shown in Table 3.

Table 3. Participant Profiles for both SL and HL

| Level | Academic Performativity in the 2 written tasks | Attitude in Class |
|---|---|---|
| Higher Ability | 70%-80% | Attentive, engaged and active note-taking in class. Participates actively in both class and group discussions. |
| Middle Ability | 60%-70% | Attentive, engaged and active note-taking in class. Participates less actively in both class and group discussions. At times, students need to be prompted to garner a response. |
| Lower Ability | 40%-50% | Not very attentive nor interested in the subject. Does take notes but in a rather mechanistic manner. Will participate in group or pair discussions but rarely in class discussions unless called upon. |

Though the two classes are named higher and standard level, they are not sorted according to their ability level but more of their personal choice of subjects. Students entered the school with either General Certificate of Education: Ordinary Level (GCE 'O' Level) or they were part of a four-year integrated programme that leads directly to the IBDP. The pre-survey results, as reported in Section 4.4, shows that students did not vary much, in part perhaps because there were no differing factors that affected the outcomes. In terms of the research study, the same design and time spent was used. The rationale behind the inclusion of the two groups was to collect more data. Within DBR, this would mean more iterations in multiple different settings. This would not only help to increase the generalisability of the study and allow for a more comprehensive picture but also help to dilute potential bias and improve the rigour of the study.

### *3.2.3 Why Design-Based Research?*

DBR can help educational researchers to "develop powerful technological tools and curricular interventions" (Barab, 2014, p. 164). Anderson and Shattuck (2012) claim that DBR is situated in real educational contexts, focuses on the design and testing of interventions, uses mixed methods, employs multiple iterations and promotes collaboration between researchers and practitioners. DBR is an evolution from design experimentation. In the early 1990s, Brown (1992) and Collins (1992) popularised design experimentation as a tool to be used in educational research, and the principles they laid out were highly relevant for this study. Brown's (1992) rationale was that design experimentation could "transform classrooms from academic work factories to learning environments that encourage reflective practice among students, teachers and researchers" (p. 78). More recently, Cobb et al. (2003) went further in insisting that design experiments "are conducted to develop theories – that is, not merely to empirically tune 'what works'" (p. 9) but to "target domain-specific learning processes" (ibid). This, they argued, can contribute to a "greater understanding of a *learning* ecology" (ibid) and provide "a means of addressing the complexity that is a hallmark of educational settings" (ibid).

There are five interrelated features of design experiments in Cobb et al.'s (2003) framework, all of which are pertinent to this study. They are as follows:

1. theory-building capacity about the process of learning and the means that are designed to support that learning;
2. a highly interventionist methodology – (research site becomes a test-bed for innovation);
3. a design generative of conditions for developing theories;
4. an iterative logic built into the design; and,
5. a capacity to operationalise as a result of theory-building (pp. 9-11).

Any study, then, that is guided by the above framework needs to work across a wide range of practices, from building theory to intervening pragmatically to reviewing and redesigning the research and its underpinning logic while at the same time ensuring that the politics of the research relationships are being sensitively built and managed.

Classrooms are, of course, complex and unpredictable places for learning. This is acknowledged by Collins, Joseph, and Bielaczyc (2004), whose study of this complexity compared psychological and design experiment methodology, noting seven differences in the methodological approaches taken by both types of inquiry. Their preference for design experimentation was based on the following characteristics that they perceived it to demonstrate:

1. a capacity to make sense of the messy situation that characterises real life learning;
2. its usefulness for complex social situations like the classroom;
3. its multiple inter-dependent variables;
4. the capacity it provides to study all the variables without allocating unequal emphasis to any variable;
5. the fact that it allows flexible design revision;
6. a capacity to involve the co-participants in the study in both the research and analysis;
7. its potential for developing a profile (qualitative or quantitative) of the design in practice as distinct from supporting a simple hypothesis (pp. 20–21).

When taken together, these seven characteristics indicate a key awareness of the messiness and complexities of an inquiry that is at the same time seeking to build capacity in research participants/stakeholders. Research in schools demands that any design must have this capacity for flexibility, co-creation and the "capacity to make sense of … messy situation[s]" (pp. 20-21). In this sense, it is unlike the sort of 'white coat science' that allows the observer to stand at a dispassionate distance and work in the more predictable field of numbers rather than the complex field of human behaviour. It is for this reason that Collins et al.'s (2004) seven characteristics are so relevant to the design of this study, documented in this thesis.

However, no matter how many characteristics a model of research has, research plans are always fallible. Collins et al. (2004) note that the basic tension in developing a design science of education is that it can be "quite different from what the designers intended" (p. 17). The specifics may be endlessly complicated by the need to provide the participants with "constant decisions about how to proceed" at every stage (ibid). Notwithstanding the complications arising from the fact that classrooms are rich and complex hotbeds of social activity, design experiment methodology's focus on understanding and addressing this "ecology of learning" is one that makes it suitable for this thesis. In short, the focus on *learning* (in all its complicated forms) in design experiment methodology influenced the decision to choose this methodology as the approach to be taken in this study.

The methodology that was used in the study was informed by Cobb's jointly authored chapter with Kay McClain: *An approach for supporting teachers' learning in social contexts* (2001). In this chapter, the authors prescribed a set of generic elements of design experiments that are relevant for all intervention research with teachers, namely:

1. Initial focus on the renegotiation of classroom norms so that teachers' classrooms might become learning environments for the teachers themselves and their students (pp. 217–218).
2. Designing a framework for supporting teachers' reasoning for seeking to change their current instructional practices (pp. 217–218).

3. Framing selected teaching experiments as cases both of students' thinking and of how effectively teachers build on that thinking (p. 218).

The relevance of their methodology for this inquiry lies in the fact that their theoretical constructs were developed in the classroom and teacher development experiments' contexts. While the context was specifically linked to the teaching of mathematics, the approaches taken are clearly generalisable across disciplinary boundaries as they focus on teaching pedagogies. Whilst this study does not work with teachers, DBR was employed based specifically on the above-mentioned generic elements and more specifically, it is useful in complex classrooms especially with the flexible and iterative research design.

### *3.2.4 Researcher's Position*

The role of a teacher-researcher reported in this current study meant taking on a full role as a participant observer. The use of participant observation as a method of data collection includes a variety of methods (see Fetterman, 1989; Jorgensen, 1989; Spradley, 1980; 2016). As Fetterman (1989) explains,

> Participant observation combines participation in the lives of the people under study with maintenance of a professional distance that allows adequate observation and recording of data. (p. 45)

By so doing, this meant a continued interrogation of the researcher's "positionality" (Lewis, Ketter, & Fabos, 2001, p. 323). Whilst their study focused on the "intertwined" (ibid) relationship between the researcher and the teachers, what holds true for this study is what they had observed about being "at once insiders and outsiders" (ibid). Merriam (1998) concurs with this description and states that:

> Participant observation is a schizophrenic activity in that the researcher usually participates in the activity. While participating, the researcher tries to stay sufficiently detached to observe and analyze. (p. 103)

The nature of this exploratory study required an adoption of this ambivalent role and the tensions that accompany it. As a teacher-researcher both observing 'objectively' and participating in the actual teaching of the subject, I found my role to be ambiguous. It was not simply that my positioning was likely to produce what Yin (2003) describes as "potential biases" (p. 94). Instead, as a teacher-researcher, the knowledge work

becomes increasingly what Smith (2000) describes as “perspectival”, especially when the data under investigation is dependent on the interests and subjectivity of the inquirer.

However, as Yin (2003) argues, though adopting participant-observation techniques could “provide certain unusual opportunities”, it may also involve “major problems” (p. 94). Nonetheless, this seems to be a feature of all social research, if we are to believe Silverman (2006). He sees participant observation as “not a particular research technique but a mode of being-in-the-world characteristic of researchers” (p. 68). Accordingly, as a participant observer in this exploratory study, the position of being a teacher-researcher meant a constant interrogation of position within the research design.

This is not unlike what Ezekiel (1988) terms as “second order action-research” (p. 164). Ezekiel, in his paper, argues that as an insider within a research design, the teacher-researcher as an insider acts as a *broker* in processing observations, interpretations and judgments (p. 164). However, he cautions that this role is “not neutral”, albeit without bias. However, the *broker* will be able to “interpret … ideas in a way,” that allows for a reconstruction rather than a dilution of their traditional practices. Hence, the conundrum of a teacher-researcher that engages in both *insider-outsider* research could be mitigated and result in the reflective inquiry advocated in educational research. Thus, the design schedule for the present study draws from Reeves’s original design as illustrated in Figure 1, adding to the work of Cobb and McClain’s (2001) questions about the nature of power relations within the school and the classroom.

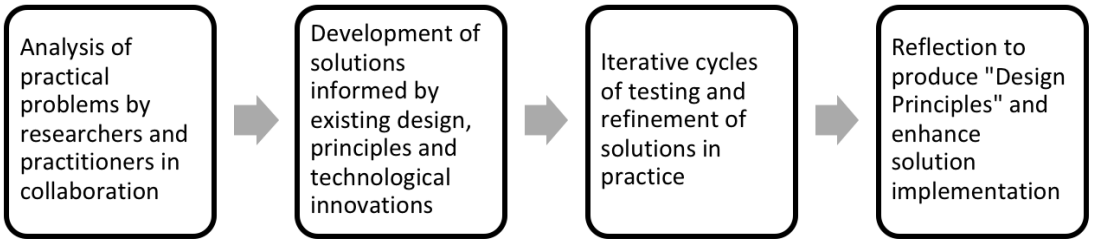



*Figure 1.* Design Research by Reeves (2006).

### *3.2.5 Ethical Concerns*

The approval of the Principal of the school in which the study was performed was first sought. Secondly, in keeping with Kanuka and Anderson's (2007) advice that "consent is one of the cornerstones of ethical research practices within the field of education" (p. 5), consent forms were issued to the students, informing them of the nature of the study and what would be taken as data. Considerations were given to the age of the participants, and their parents were informed. Prior to the questionnaires and interviews, it was explained that they were solely for research purposes and that participants would be anonymised, thus, adhering to a common practice in qualitative research. Each interview was recorded and transcribed. As the teacher-researcher was an insider, this exploratory study not only followed the guidelines dictated by the school and the university but also adhered to what Smith (2005) explains about the most basic requirement of research skills; which is about "establishing, maintaining, and nurturing reciprocal and respectful relationships" (p. 97).

## *3.3 Data Collection*

The data collection for this research study draws on the DBR principles which employ a "highly interventionist methodology" and has an "iterative logic built into the design" (Collins et al., 2004, pp. 9–11). The iterative nature of DBR contributes to an effective implementation of blended learning in the classroom. The iterative cycles not only help to refine a research design but may also help to acculturate students to a different learning environment. As Shattuck (2012) advises and Cobb et al. (2003) concur, "iterative logic" (p. 9) must be incorporated into the design of any DBR because it is "key to the process of testing, improving, and understanding" (Gravemeijer & Cobb, 2006, p. 54). Furthermore, "each iteration helps to sharpen aims, deepen contextual insights and contribute" to not only the design principles but also the curriculum design (McKenney, Nieveen, & Akker, 2006, p. 124). Accordingly, the data collection spanned a period of 6 months and was conducted in three main cycles that followed the academic terms; Term 1, Term 2 and Term 3. Bearing in mind Fullan's (2013) call that "technology and pedagogy must be integrated around the roles of *both*

students and teachers" (p. 68), this study followed the school's scheme of work where the ICT component was added 'naturally' to the teaching and learning.

Consequently, to provide for a more natural integration of the online activities, this study adopted a cycle of activities. For example, in a typical unit, a lecture on a given topic (i.e. Language and Communities) was conducted. This was usually followed by in-class discussions in groups of four, paired work or as a whole class. The next activity required students to work collaboratively on the tasks online; this could be done either during curriculum time or, if not, as a piece of take-home work (see Figure 2). The initial planned pedagogical unit evolved in subsequent units to include closure and teacher's feedback either on the class/group discussions or presentations.

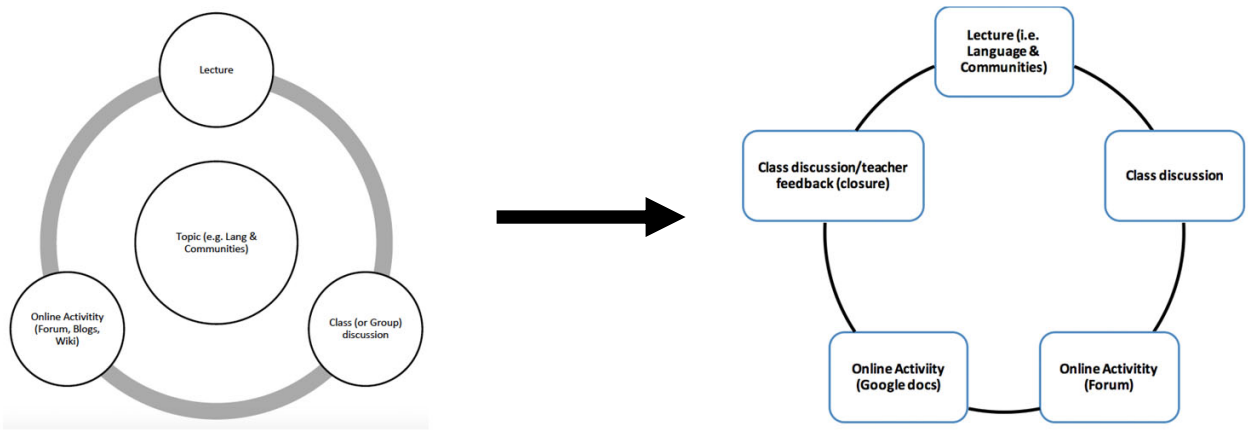



*Figure 2.* Design of Pedagogical Activities for a Unit.

In the design of an iteration, this study draws on Garrison's (2006) collaborative design principles. Garrison's theoretical framework which draws on the community of inquiry model, delineates three areas from a social and cognitive perspective; *design*, *facilitation*, *direct instruction*. Garrison (2006) acknowledges that assessment is important in "identifying misconceptions" (p. 33) but could prove to be challenging to implement summative assessment for online learning. Nonetheless, formative assessment might be an alternative recourse. Garrison (2006) explains that the *design* of an online community needs to create "a climate of trust and belonging" (p. 26), albeit, a conducive *social* environment that fosters a community of inquirers. The

second area which Garrison (2006) highlights as important is *facilitation* of online discourses. He explains that online environment for collaborative and reflective discourse could sustain the online community through "group cohesion" (p. 29). Moreover, *cognitive presence* is also created through this "process of collaboratively constructing meaning and confirming understanding in a sustainable community of inquiry" (ibid). Thus, iterations of pedagogical units provided students with opportunities of engaging within the social context of their physical classroom and online learning community, albeit groupwork. This results in occurrences of meaningful learning experiences (Lave & Wenger, 1998; Wenger, 1999, 2006) as facilitated through their "participation and reification" (p. 1-2). In short, this dynamic process of both participation and reification can help to "negotiate and renegotiate the meaning" of students' learning experiences in their individual groups (Lave & Wenger, 1998, p. 51). Finally, Garrison (2006) observes that whilst students are encouraged to partake in self-directed and collaborative learning, direct teaching intervention conducted as and when is required, could prove to be useful. This is particularly important as *direct instruction* can "ensure that there is resolution and metacognitive development" (p. 31). Consequently, online learning cannot be constrained to just online learning but there should be closure either through whole class discussion or teacher feedback. This feedback could also take the form of formative assessment either through teacher's comments on a given online task or a group presentation. All of which may be regarded as a scaffold toward high-stakes examinations, thus, playing key roles toward summative assessments.

Thus, the construction of each unit followed an iterative cycle where contextual knowledge was first imparted during class lecture(s). Following which, students engaged in class discussion as a way of encouraging and monitoring their initial understanding of the requirements of the task. Students' learning continued online with activities constructed to build on their initial lecture and class discussions. A final reflection of their online work was conducted after completion. The timeline for the data collection is shown in Table 4.

Table 4. Timeline for Data Collection

| Time taken | Topic | Online Activity | Data | Research Activities |
|---|---|---|---|---|
| | | **Iteration 1: Term 1** | | |
| 4 wks | Unit 1: Language and Communities<br>• Introduction and overview | LMS Forum | Pre-Survey | Reflection on the pre-survey data and tweaking of the research design |
| | | **Iteration 2: Term 2** | | |
| 2 wks | Unit 2: Advertisements | Blog | Interview #1 | Reflection on the interview data and tweaking of the research design |
| 2 wks | Unit 3: Language and Gender<br>• Introduction and overview | Wiki on LMS | | Reflection on the uptake by students and the tweaking of the task |
| 2 wks | Unit 4a: *The Great Gatsby*: Context<br>• Background of time period<br>• Background of author<br>• Background of literary period | Wiki on LMS | | |
| 2 wks | Unit 4b: Setting & characterisation of the novel(s) | LMS Forum | | |
| 2 wks | Paper 1 exercise<br>• Revision and examination preparation | GoogleDocs | Interview#2 | Reflection on the Interview #2 and the tweaking of the research design |
| | | **Iteration 3: Term 3** | | |
| 2 wks | Examinations | | | |
| 2 wks | Unit 5: Language and Presentation of Speeches<br>• Rhetorical devices | LMS Forum/LMS Blog | | |
| 4 wks | Unit 6: The Great Gatsby: Paper 2<br>• Revision and final examination preparation | GoogleDocs | | |
| 2 wks | Paper 1 and Paper 2 exercises<br>• Revision and final examination preparation | | Post-Survey/ Interview#3 | |

In summary, the data collection techniques used in this study were field notes, observations (i.e. online forums, GoogleDocs, Blogs, Wiki, etc.), pre- and post-questionnaires and three focus group interviews (FGIs). The pre- and post-surveys were administered to both classes.

FGIs used in the interviews drew on what Morgan (1996) identifies as three key areas of focus group research. Firstly, it is a method that is regarded as data collection; secondly, interaction is regarded as a source of data; and lastly, the active role of the researcher in creating group discussion for the purpose of data collection needs to be acknowledged. As Morgan (1988) argues, "the explicit use of … group interaction … [can help] to produce data and insights that would be less accessible without the interaction found in a group" (p. 12). However, Morgan (1996) also admits that focus groups may neither have quite the same strength as participant observation in its ability to observe phenomena in context nor does it allow for a rich understanding of participants' knowledge as found in in-depth individual interviews. Nevertheless, focus groups can help to achieve better results than a focus on either of the above-mentioned techniques.

The three FGIs were conducted at three important junctures of the data collection. The first was conducted after the students' initial experiences with online activities at the end of the first school term (see Appendix 5). Students' understanding, learning, acquisition and application were elicited through introductory and follow-up questions. The focus of this first FGI aimed to draw out students' learning styles and the place of ICT in their learning. Given that the students had just begun their school term, it was difficult to place them into ability groups. Instead, given the tight time constraint, the students were grouped together based on their availability. This sampling approach also helped to reduce concern about perceived bias on students' academic ability. All the interviews were conducted after school hours.

The second FGI, however, was targeted at the end of Term 2 where the students would have gained more exposure in the use of technology to complement their learning of the LangLit curriculum (see Appendix 7). Given that more time had passed and their academic abilities became more apparent, students were now grouped specifically according to their ability as discerned by formative assessment (e.g. class assignments, class and online participation). The focus groups in this case were purposeful, unlike the first FGI.

The third and final FGI was conducted after the post-questionnaire (see Appendices 6 and 7). The focus of this interview was on students' overall experience on the use of technology in their year-long academic experience. This last interview, as with the second, sought to understand students' perceptions for technology both in- and out-of-school. Students were asked to comment not only on the accessibility of the school's LMS and GoogleDocs, but also their experiences after 24 weeks of exposure to blended learning. The purpose of this final interview was to draw out students' perceptions on the viability of including technology in their LangLit curriculum.

*3.4 Data Analysis*

Two of the main aims of this study were to examine (1) students' experiences of blended learning and (2) investigate the important aspects for effective implementation (i.e. cultural, pedagogical and technological considerations). In the initial stages of data analysis, content analysis was conducted on a more grounded basis. It was through a consolidation of this preliminary analysis that this study drew on and adapted the technological pedagogical and content knowledge (TPACK) model proposed by Mishra and Koehler (2009; 2007; 2006a; 2006b) and the more recently updated TPACK (see Koehler, Mishra, & Cain, 2013). TPACK is used to describe the knowledge teachers need to teach in this current digital age. This model is an integration of pedagogical knowledge, content knowledge and technological knowledge where the intersection of these three areas will result in technological pedagogical content knowledge (TPACK), and thus, accommodating education requirements of the digital age (see Figure 3).

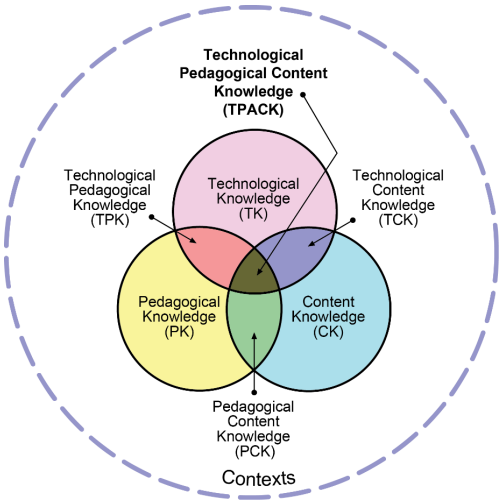



*Figure 3.* TPACK model by Koehler and Mishra (2006).

Chai, Koh and Tsai (2013), in their study, refine this model and suggest that there could be two perceptions in using TPACK. One is from the teachers' perception (TPACK) and the other, from the students' perception, which they labelled as TLCK. They argue that both models correspond to each other and can "provide a check on the effects of teachers' TPACK implementation" (p. 46). They reason that students' conceptions of learning which they define as "how students perceive or interpret their learning experiences" can affect the way these students use technology to learn their content knowledge. Consequently, this can both inform and enhance teachers' use of TPACK. This is an interesting finding and their recommendation does indeed provide a framework to examine the cultural, pedagogical and technological considerations required for the design and implementation of blended learning reported in this current study. In considering these three factors, this study adapts the TPACK model shown in Figure 4 which is intended as a core contribution of this research study.

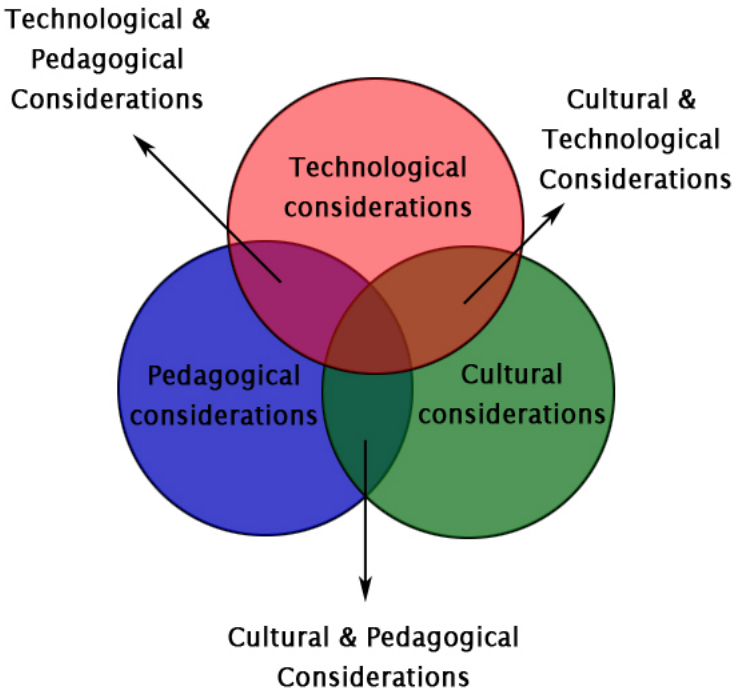



*Figure 4. Considerations Model* (Adapted from TPACK model).

Content analysis is used as a method of analysis for both the questionnaires and FGIs. The responses collected from the questionnaires were analysed by using the Statistical Package for Social Sciences (SPSS) software (IBM Corp, 2013). After each set of FGIs were conducted, each respective transcript was prepared. Margin notes and provisional coding was done in this initial stage. The procedures adopted were as follows: (1) The original recording and transcript were listened to and checked repeatedly to understand the perceptions of the students. (2) By focusing on sentence-by-sentence and phrase-by-phrase, themes and sub-themes were drawn out and sorted accordingly. Emergent coding categories were created from preliminary analysis of the questionnaires and FGIs. There were initially twelve themes that emerged from this preliminary analysis of the FGIs. However, a closer analysis found that there were overlaps and these categories were further reduced to eight and upon ongoing conversation with critical friends and through the repetition of revision, the final seven themes emerged. These themes were then mapped onto the Considerations Model.

The next two chapters present the findings from this current study. Chapter 4 presents the findings from the teacher-researcher's observations, field notes, pre- and post-questionnaires, and the first FGI. The chapter also describes the iteration process that contributed to this study's research design. Chapter 5, on the other hand, presents the findings from the students' interviews and focuses on the students' experiences of blended learning.

## Chapter 4: Findings I

### *4.1 Introduction*

This current study examines the ways in which a blended learning approach is implemented in the IBDP English A lessons. The design of this blended learning approach as explained in Chapter 3, *reconceptualises* the LangLit programme include a blend of both face-to-face teaching with the use of technology. This use of technology aimed to encourage these so-called digital natives' engagement with their English A curriculum. Accordingly, the design of the blended learning approach reported in this study draws on not only the antecedents of this study but also on the teacher-researcher's field notes, the pre- and post-questionnaires and the first FGI.

### *4.2 Antecedents to the Study*

This section describes the research approach and the processes and relationships that needed to be put into place to prepare for the formal study. Harking back to Cobb et al.'s (2009) study, research, conducted between 2014 and 2015 (see Ang, 2014; 2015a; 2015b), provided insights into the concerns of implementing blended learning in Singapore. One of the key findings from these studies revealed students' preference for teacher feedback to peer feedback. This is similar to Fang's (2007) study where she found that students regard online activities as social activities that are unconnected with "serious work" (p. 249). These students also indicated a preference for communication with each other in physical settings rather than on online platforms, echoing similar findings by Ang (2015a; 2015b).

In Ang's (2014) study, the research project examined how asynchronous learning in the form of an online forum could be integrated into the curriculum. Though there was active participation by the four students, they did report that unfamiliarity with each other meant that they had to spend some time trying to mediate their virtual presence. They also admitted that the forum was a different type of online platform than what they were used to and hence, it was a conscientious effort to login daily in the initial few days. However, being able to login at a time that is convenient to their schedule, albeit, late at night, was one that was welcomed. What was particularly revealing to them was that there could be multiple interpretations to

a short excerpt of text provided by the teacher, which they had not expected. One of the key findings from this project was that students did not need teacher-led discipline in online forums and yet could engage in higher-order thinking. Consequently, the finding on the viability of employing an online discussion forum made it a potential platform for the intervention proper.

Studies conducted by Ang in 2015 focused on students' perceptions of ICT through the use of different online platforms. For instance, students participated in online discussion forms, the construction of a wiki and GoogleDocs. Though students worked in groups, most of them adopted a *divide-and-conquer* attitude. Furthermore, most of them preferred a face-to-face discussion even when an online forum was created for them to discuss. Interestingly, in the construction of a Wiki, though considerable time was spent mediating its demands and objectives, students found it a worthwhile exercise. On the other hand, the use of GoogleDocs was well-received by students given the user-friendly nature of the platform. They felt that the real-time updating and chat function helped to circumvent the delayed response that was found on the LMS forum.

The findings from these two studies involved the use of different online tools, thus, playing a key role in in the intervention. In short, the presage documented in these studies helped to inform and prepare the design of this current study.

### *4.3 Design Narrative: Description of the Design Iterations*

This current study was conducted from February 2016 to September 2016. DBR, albeit the Reeves's (2006) DBR model, is depicted through several design research phases described in the previous chapter. It first begins with the analysis of a practical problem before proffering a series of solutions (see Figure 5). These solutions are revised in three iterative cycles whilst drawing on the reflection (i.e. questionnaires and interviews).

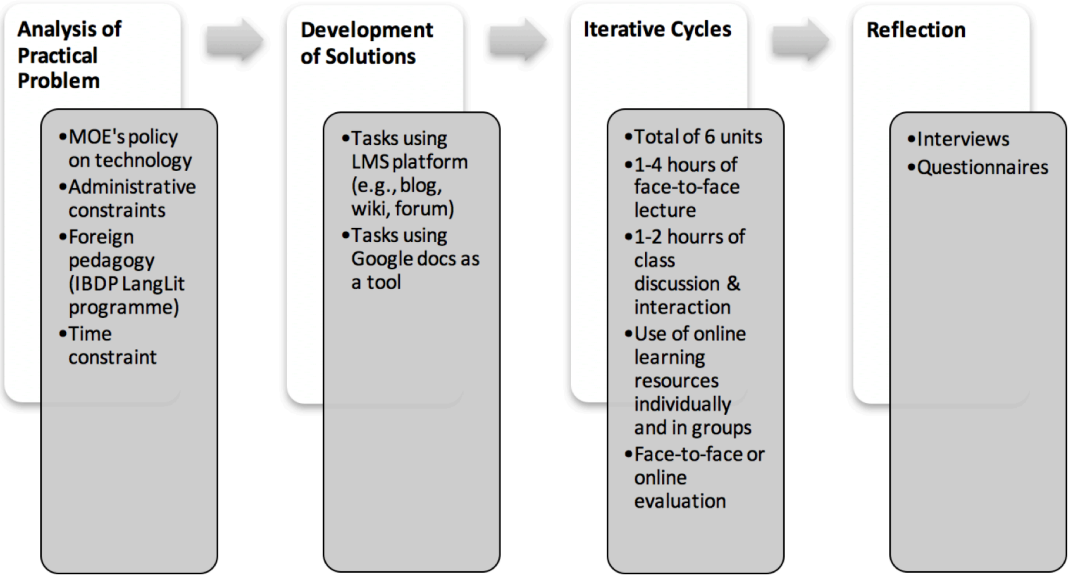



*Figure 5.* Design Research of Blended Curriculum. Adapted from Reeves (2006).

In this current study, the teacher-researcher who currently teaches on the IBDP LangLit curriculum defined the rationale for conducting an intervention. Working within the boundaries of the scope and sequence of the curriculum, the rationale for using blended learning in an IBDP English A classroom meant that the incorporation of technology into the classroom needed to be done in a more natural manner. One of the key features of Cobb et al.'s (2003) design experiment was that "an iterative logic" needs to be "built into the design" (pp. 9–11) and hence, the design of this study included three iterations. By so doing, this afforded opportunities in constant successive refinements to design, implementation, analysis and redesign. In the introduction to blended learning, this study employs two online platforms: (1) a Learning Management System (LMS); and (2) GoogleDocs. The LMS (see Figure 6) is a school platform used mostly for delivery of electronic educational technology courses. In this school, however, the LMS is generally used for notes dissemination and once-a-year e-learning activity.

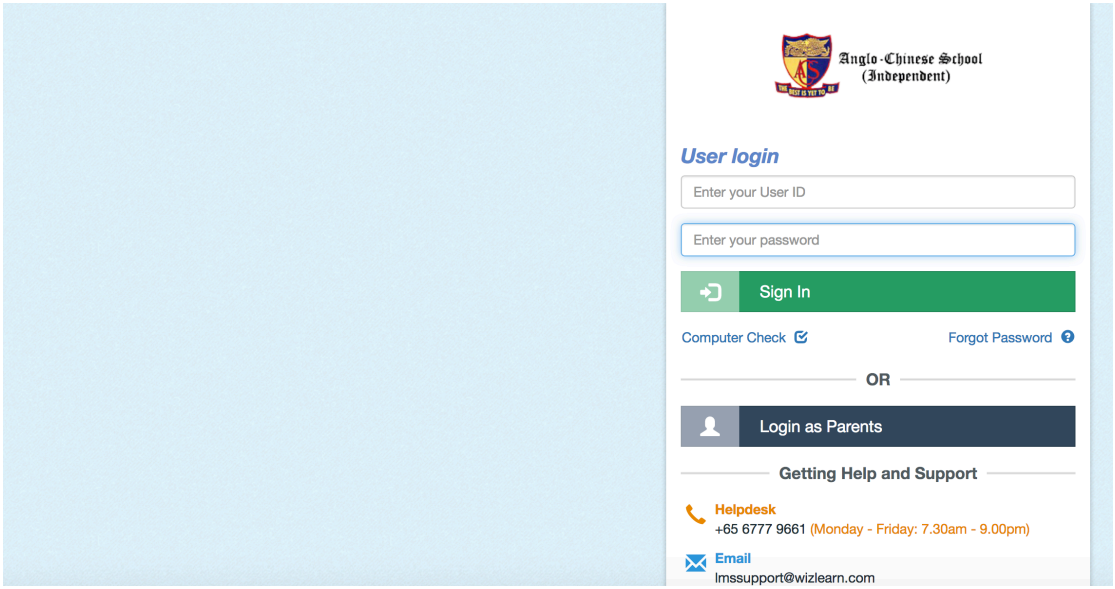



*Figure 6.* LMS Login Page.

Depending on the subject area and teachers' preferences, other aspects of this platform such as quizzes, blogs, forums, wiki, etc. may be used (see Figure 7).

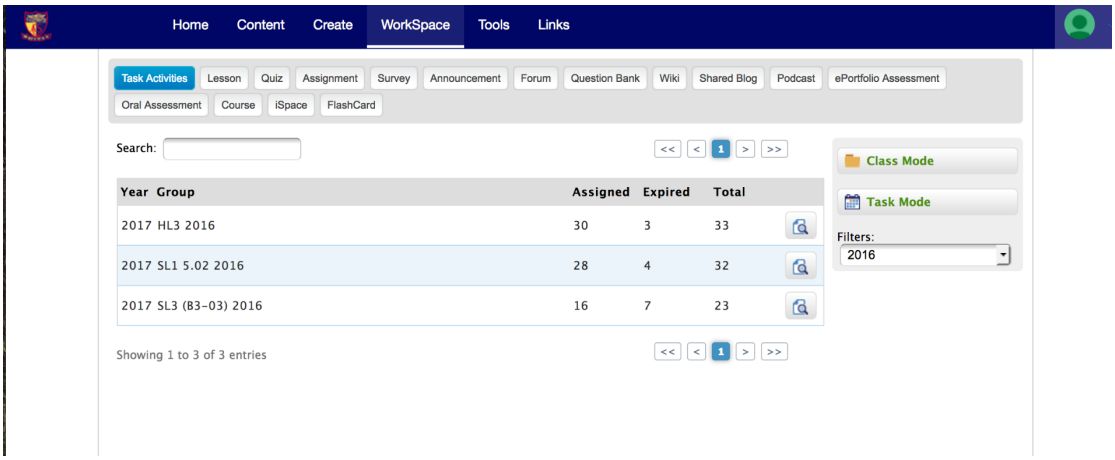



*Figure 7.* LMS Workspace.

The LMS platform does have potential for uses in teaching and learning, and the design of this study included toolkits such as forum, wiki, and shared blog.

### *4.3.1 Iteration 1: Introduction to Blended Learning*

Online tasks, designed for both the LMS and GoogleDocs, were a refinement from previous studies as mentioned earlier (see Ang, 2015a; 2015b). Guided by the constraints of the scheme of work that detailed the teaching of specific topics within a time-frame, this first of three iterations introduced students to the topic, *Language and Communities*, through a lecture format. Following this, the students were placed

in groups to explore an online forum task (see Figure 8) where they were expected to discuss the notion of communities (see Appendices 1).

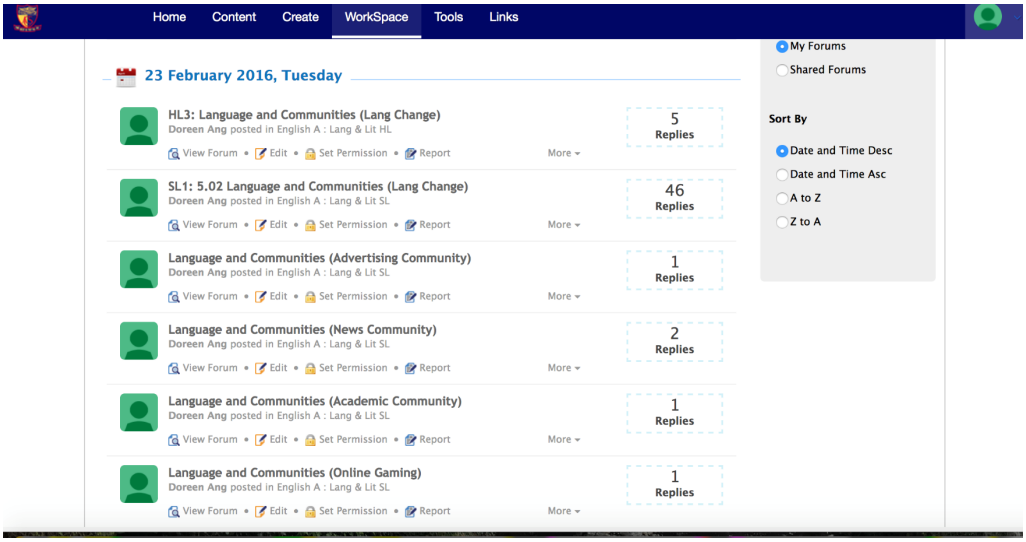



*Figure 8.* Forum Discussion on LMS.

As this was the first activity, the discussion of the information within each group was done in a whole class format, though they were encouraged to post any potential questions informally on their individual group forums. However, it was observed that there was little posting and even when posts were made, they were more clarifying in nature. In whole class discussions, though there was participation, students had to be continually prompted. A possible reason could be that they were trying to familiarise themselves with not only new curriculum but classmates as well. The initial plan of introducing another forum discussion was cancelled, when it was observed that students were struggling with the reading of the given novel. Instead, more lecture-style lessons were conducted to help aid students in the annotation of the novel. Accordingly, the design was refined for the next iteration and this first iteration ended with both an interview and a questionnaire.

### *4.3.2 Iteration 2: Adapting to Blended Learning*

This second iteration, drawing insights from field note observations and the feedback from both the questionnaire and interview, refined the online tasks for the LMS platform. Besides the forum, the online tasks expanded to include both blog and wiki construction as well as GoogleDocs. The inclusion of these tasks was also, in part, a measured inclusion that drew from Ang's (2014; 2015a; 2015b) findings. For this

iteration, which took place in Term 2 of the academic year, a total of five online tasks were given to the students and they were as follows:

1. *Forum Posting*. Students were tasked with an online forum discussion based on their studied text, *The Great Gatsby*. Students were given detailed instructions in examining the characterisation of key characters in the novel (see Appendix 1).
2. *Wiki construction*. Students were tasked to construct a Wiki and were given several suggested sources for their references, followed by an oral presentation (see Appendix 2).
3. *Blog construction*. Students were tasked with the deconstruction of an advertisement and expected to present their responses in the blog, followed by an oral presentation (see Appendix 3).
4. *Paper 1 on GoogleDocs*. Students were tasked to deconstruct a Paper 1 exercise as part of their examination preparation. They were expected to complete a full essay together as a group and feedback given in class (see Appendix 4).
5. *Discourse Markers on GoogleDocs*. Students were tasked to contribute to a class effort in listing out discourse markers. This was a last-minute addition, given that the students were rather limited in their use of discourse markers (see Figure 9).

**Discourse Markers (HL3)**

Type in a discourse marker that display the following categories (choose any 5). Some of the discourse markers can fall into more than one category and you are allowed to place them there

| | **Adding** | **Cause & Effect** | **Repetition** | **To generalise** | **Compare/ Contrast** | **To concede** | **Qualifying** | **Illustrating** | **Emphasis** | **Sequence** | **To conclude** |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Example** | **and** | **So** | **In short** | **On the whole** | **Similarly** | **Admittedly** | **unless** | **For example** | **Especially** | **subsequently** | **In conclusion** |
| Natalie | Over and above | consequently | To sum up | All in all | alike | undoubtedly | unless | To give an instance | chiefly | Moving on | overall |
| Darryl | | | In essence | | | | | | | Secondly | |
| Raquel | also | because | | | likewise | | As long as | Such as | notably | next | |
| Ben | | | | | | | | | | Thirdly | |
| Gary | Likewise | As such | | | | | | | | | |
| Eiin | In addition | Hence | | | like | Arguably | | For instance | significantly | then | |
| Jireh | moreover | therefore | | | | | | | | | |

*Figure 9.* Discourse Markers.

Students were clearly uncomfortable with the initial blog posting despite the instructions given in class and guidelines posted on the blog page. During the presentation, some of the students highlighted that they were unsure about the task itself. Though they knew that they had to deconstruct the given video advertisement, they were unsure about the voice that they could use in the blogs. As a result, some adopted a more colloquial reader-friendly tone whilst others made it more academic-sounding. The groups that made it more academic-sounding explained that they had based it on the assumption that the task, a deconstruction of an advertisement, was like their Paper 1 exercise.

In the second task on the construction of a wiki, students were expected to draw their content from various recommendation sources. They were also encouraged to do research on other sources and to refer to Wikipedia for the presentation format. Students found this task a little easier compared to the blogs, because they were simply summarising and could mimic existing Wikipedia. However, during their oral presentation, they mentioned that whilst it is fine as a classroom piece of work, they wondered why they needed to rehash something that was already better done in some of the different sources (e.g. academic websites, Wikipedia, etc.). Nonetheless, most admitted that it was a good "hands-on experience" that piqued their interest in the subject matter on which they were researching.

In the third task, students were expected to post their analysis of key characters in the novel. Questions and guidelines were given to the students and though the students participated, the posts read more like an individual response of character analysis. There was little engagement with previous responses made. This clearly showed unfamiliarity and discomfort with this online platform. In fact, given the 3 to 4 weeks' time-frame for this activity, students had to be continually reminded during class times to post. Some of the students explained in class that an earlier post had already captured everything they wanted to say and hence, there was little left to contribute.

In the final task for this iteration, students worked on the examinable Paper 1, a comparative deconstruction exercise of two different text types on their preferred online platform, GoogleDocs. They were placed in groups and given different past year questions. The consolidation of the responses formed a database for revision. Students were given class time to discuss and had a week to complete this exercise. During teacher-led feedback in class, students admitted that there was no equitable share of the work, with some students contributing more than others. In addition, the students were also required to contribute to a list of discourse markers. Though the students enjoyed the latter task, they again had to be prompted to complete it.

#### *4.3.3 Iteration 3: Acceptance of Blended Learning*

This final iteration took place in Term 3 of the academic school year, after a major examination. As such, students were rather concerned with the final examinations that would occur 10 weeks later. The design of the following tasks aimed to address their concerns from the just-completed examination and the forthcoming end-of-year finals. There were two types of tasks given and the first task was placed on the LMS forum and blog whilst the second task used GoogleDocs. The first of these targeted students' understanding of rhetorical devices. One of the demands of Paper 1 for students was to display understanding of how language creates meaning. Often students addressed this criterion by drawing on rhetorical devices and used them rather loosely in the examination. As such, following the mid-year examination, this activity aimed to address this issue. Students were given a list of rhetorical devices and in their respective groups, selected their preferred rhetorical devices. Each member was expected to take ownership of one rhetorical device and the group to come together and present it as a blog post. Following the feedback from the previous blog exercise in iteration 2, students were told that they could select a style (e.g. formal or informal) best suited for their blog post and video presentation. Students were given class time to discuss and plan how they would construct the blog and video presentation. Students appeared to enjoy the activity and most started to use the terms that were video-recorded and/or on the blogs.

The second task addressed the students' concerns with their Paper 2 examinations, which tested the students' understanding of the novel(s), a paper tested only at the end-of-year examinations. As with previous years, the second half of that term would mean examination preparation where students worked through past year examination papers. To complete this task, students were divided into their usual groups. Following the field notes observations in iteration 2 and FGI, students were assigned individual questions and as a peer-reviewer for their group members (see Appendix 4). Akin to the objective for Paper 1 in iteration 2, this activity allowed students to work on different questions, which would then serve as a revision resource for the upcoming examination. Folders were created and students were expected to sort their questions for better organisation (see Figure 10). Again, oral feedback was conducted for each of these questions in class.

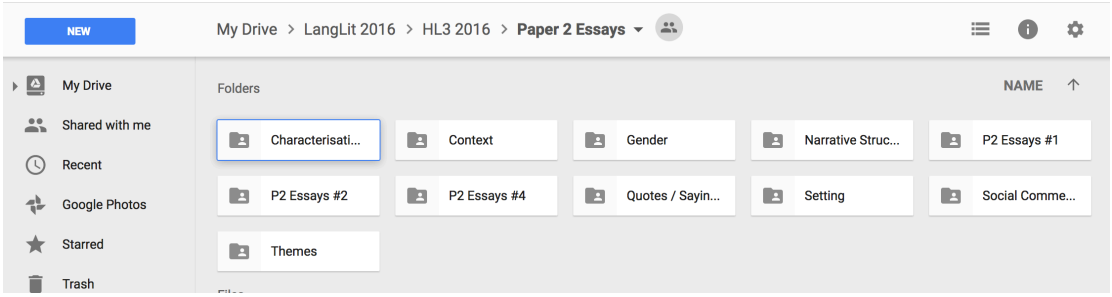



*Figure 10.* Folders on Google Drive.

The design of this current study was done in three iterations that fitted into the school's three academic terms. Students initially found it rather awkward, in part, because it was at the beginning of a school year and they were adjusting to both a new curriculum, new classmates and their identity as first-year IB students. In iteration 2, students were still a little uncomfortable but were adjusting well to the demands of the blended learning and their informal feedback was that blended learning was interesting. In the last iteration, students appeared to be most comfortable with the blended learning and could leverage on it for their learning purposes.

### *4.4 A Brief Report on the Findings of the Questionnaires and the First FGI*

This section describes the findings of the questionnaires and first FGI conducted with the students. The pre-questionnaire aimed to provide an overview on how students use technology by analysing their responses with descriptive statistics.

Predictably, all students owned a mobile phone and a computer (e.g. either laptop, desktop or tablet) as shown in Table 5. Given the demands of the IBDP where students were expected to work on their internal assessments in MS Word, most of the students brought their computers to the classroom and correspondingly, the post-questionnaire found an increase in the ownership of laptops to 97.4%.

Table 5. Technological Tools

| ***How many of the following do you own?*** | | | | |
|---|---|---|---|---|
| | **Pre-Survey** | | **Post-Survey** | |
| | N=42 | % of stud using | N=38 | % of stud using |
| *Handphone* | 42 | 100.0% | 38 | 100.0% |
| *Laptop* | 39 | 92.9% | 37 | 97.4% |
| *Desktop* | 12 | 28.6% | 10 | 26.3% |
| *Tablet* | 22 | 52.4% | 16 | 42.1% |
| *Media Player* | 7 | 16.7% | 8 | 21.1% |
| *Game Console* | 21 | 50.0% | 17 | 44.7% |
| *Portable Game Console* | 0 | 0.0% | 0 | 0.0% |
| *Digital Camera* | 17 | 40.5% | 17 | 44.7% |
| *Others* | 0 | 0.0% | 0 | 0.0% |

Table 6 provides an overview of the extent and type of technology with which students engaged in their formal learning and socialising. For instance, students tended to rely heavily on Google/Google Scholar for their learning as seen from an increase of 57.1% in the pre-survey to a 63.2% in the post-survey. Content-laden sites such as Wikipedia and Internet websites saw a 10.4% and 14.3% respective marginal increase by the end of the academic year. In addition, social media tools such as messaging via WhatsApp dominated as the top learning tool with a 60.5% adoption by students. Though there was some use of both Instagram and Telegram, the use in formal learning was minimal with both social media tools used by less than 25% of the students.

Table 6. Technological Means for Formal Learning and Socialising

| ***Which of the following do you use for your learning daily?*** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **Formal Learning** | | | | **Socialising** | | | |
| | **Pre-Survey** | | **Post-Survey** | | **Pre-Survey** | | **Post-Survey** | |
| | N=42 | % of stud using | N=38 | % of stud using | N=42 | % of stud using | N=38 | % of stud using |
| *Text Messaging* | 25 | 59.5% | 23 | 60.5% | 38 | 90.5% | 33 | 86.8% |
| *Google/Google Scholar* | 24 | 57.1% | 24 | 63.2% | 9 | 21.4% | 6 | 15.8% |
| *MP3 Players* | 3 | 7.1% | 2 | 5.3% | 2 | 4.8% | 1 | 2.6% |
| *Handheld computers* | 13 | 31.0% | 19 | 50.0% | 11 | 26.2% | 17 | 44.7% |
| *YouTube* | 12 | 28.6% | 11 | 28.9% | 12 | 28.6% | 17 | 44.7% |
| *Blogs* | 2 | 4.8% | 0 | 0.0% | 3 | 7.1% | 2 | 5.3% |
| *Podcasts* | 0 | 0.0% | 0 | 0.0% | 1 | 2.4% | 1 | 2.6% |
| *Simulations, Games* | 1 | 2.4% | 1 | 2.6% | 1 | 2.4% | 0 | 0.0% |
| *Facebook* | 11 | 26.2% | 6 | 15.8% | 21 | 50.0% | 17 | 44.7% |
| *Twitter* | 1 | 2.4% | 0 | 0.0% | 7 | 16.7% | 4 | 10.5% |
| *Instagram* | 7 | 16.7% | 9 | 23.7% | 30 | 71.4% | 26 | 68.4% |
| *Telegram* | 2 | 4.8% | 5 | 13.2% | 6 | 14.3% | 4 | 10.5% |
| *Ask.fm* | 0 | 0.0% | 0 | 0.0% | 7 | 16.7% | 13 | 34.2% |
| *Kik* | 0 | 0.0% | 0 | 0.0% | 1 | 2.4% | 0 | 0.0% |
| *Whisper* | 0 | 0.0% | 0 | 0.0% | 2 | 4.8% | 0 | 0.0% |
| *Tumblr* | 1 | 2.4% | 2 | 5.3% | 0 | 0.0% | 0 | 0.0% |
| *Myspace* | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| *Video conferencing (i.e. SKYPE)* | 5 | 11.9% | 4 | 10.5% | 7 | 16.7% | 6 | 15.8% |
| *Chat (i.e. messenger, etc.)* | 17 | 40.5% | 18 | 47.4% | 21 | 50.0% | 21 | 55.3% |
| *Wikipedia* | 10 | 23.8% | 13 | 34.2% | 1 | 2.4% | 2 | 5.3% |
| *Video clips (excluding YouTube)* | 1 | 2.4% | 2 | 5.3% | 2 | 4.8% | 2 | 5.3% |
| *Internet websites (excluding YouTube and Video sites)* | 15 | 35.7% | 19 | 50.0% | 8 | 19.0% | 5 | 13.2% |
| *Forum boards* | 2 | 4.8% | 4 | 10.5% | 1 | 2.4% | 2 | 5.3% |
| *LMS Forum boards* | 1 | 2.4% | 2 | 5.3% | 1 | 2.4% | 1 | 2.6% |
| *Others* | 0 | 0.0% | 0 | 0.0% | 1 | 2.4% | 0 | 0.0% |

In terms of the use of technological tools for socialising, it is not surprising that text messaging was preferred by students with more than 85% of students reporting their use of it. Whilst Instagram barely made an appearance in students' preference as a learning tool (<25%), it was one of the preferred social media tools as seen from 68.4% of students logging in daily. Students tended to segregate social media sites (i.e. Instagram, Facebook, Twitter, Tumblr etc.) and text messaging apps (i.e. Telegram) between their learning and socialising. The only anomaly to this was text messenger (i.e. WhatsApp) which they used almost exclusively in both learning and socialising. Unlike the previous table, Table 7 shows students' use of technology in the classroom

and/or school-related work. Scores were calculated by SPSS using the 8-point Likert type scale, thus allowing for a more intuitive interpretation because the absence of the mid-point helps to mitigate social desirability bias (Garland, 1991). Overall, students reported an increase in the use of technology in the classroom.

Table 7. Students' Use of Technology in the Classrooms

| | ***Weighted Mean*** | | |
|---|---|---|---|
| | **Pre-Survey** | **Post-Survey** | **Difference** |
| ***Use of Computer in class*** | **3.26** | **5.24** | **↑ 1.98** |
| ***Use of Google Docs*** | **4.79** | **5.50** | **↑0.71** |
| ***Use of Computer only at home to complete assignments*** | **4.81** | **5.71** | **↑0.90** |
| ***Use of Internet to complete assignments*** | **5.71** | **6.66** | **↑0.95** |
| ***Use of social media in class*** | **3.55** | **4.00** | **↑0.45** |
| ***Use of social media to complete assignments*** | **3.79** | **4.61** | **↑0.83** |
| ***Importance of technology in learning*** | **6.40** | **6.71** | **↑0.31** |

Based on the weighted mean, the area which saw the largest increase was the use of computers in class (↑ 1.98). There was a clear increase in the use of technology to complete the assignments both in-class and at home. Students seemed to rely heavily on the internet as an aid to task completion (↑ 0.95). Students also reported an increase of 0.83 in using social media to complete their assignments. In total, an increase of 0.31 was reported by students that technology was important in enhancing their learning. This marginal increment showed that students did not regard technology in their learning as critical.

Following the pre-questionnaire, students underwent the first FGI, each lasting about half an hour. In this first interview, students were asked about their learning experiences as a first-year IBDP student and to reflect on their experiences of the LangLit curriculum for the last four weeks. Given that students were new and little was known about their academic abilities, save for their results in their previous year examinations, the interviews conducted were grouped according to the availability of the students. In the interview, students were asked about their online tasks and their views on the LMS. Students reported that they found the manner of engaging with a new subject, LangLit, as something different and interesting. They explained that it

was not only the blended learning aspect that proved to be different but also the content area of the subject. The findings of this interview can be divided into two major areas: (1) Online learning and classroom strategies; and (2) the content area.

Table 8. Students' Use of Technology in the Classrooms

| Online learning and classroom strategies | Content Area of LangLit |
|---|---|
| • More group work though students preferred face-to-face discussion. | • Language (i.e. analysis of non-literary texts) was regarded as appealing because of its content and real world relevance. |
| • Independent learning where teachers facilitates by drawing out the parameters of the task and students expected to complete the task through research. | • Content area was regarded as more challenging because of the breadth of the subject. |
| • Blogs were a text type that these digital natives claim that they hardly encounter and hence, found it to be challenging. | • Literature (i.e. analysis of literary texts) was still regarded as a struggle by some of the students who had previously found it challenging. |
| • Different functions found in LMS (e.g. forums, blogs) were regarded as interesting because they allowed for experiential learning.<br>• LMS was previously one that they only downloaded notes. | |

Generally, students were receptive towards blended learning and the LMS platform did provide variety in terms of online tasks. As expected with the introduction of a new subject, students did find the content area rather challenging though they were sufficiently interested in the language component which they felt had real-life relevancy. In sum, the findings from this interview (see Table 8) not only provided insights into the second iteration of the blended learning but also helped to inform and refine questions for the next two FGIs, presented in Chapter 5.

## Chapter 5: Findings II

*5.1 Introduction*

This current study examines how blended learning approach was implemented and received by a specific population of students. One of the tools used to draw out the students' experiences were pre- and post-questionnaires and FGIs. The questionnaires were conducted at the beginning and end of the study with the FGIs conducted in between. The previous chapter presented the findings from the questionnaires and the first FGI and this chapter examines the findings from the second and third FGIs.

The second and third FGIs lasted between 45 to 60 minutes long. In these interviews, they were asked to reflect on their experiences of the blended learning approach and their perception on the effectiveness of this approach for their learning. A total of 12 themes were initially drawn out from these interview data and through revision, the final 7 are as shown in Table 9. The frequency with which these themes occurred in both FGIs were further coded using MS Excel and a summary of the findings are as shown in Table 10.

Table 9. Interview Themes

| Coding Reference No. | Themes |
|---|---|
| 1 | Conundrum of Time and Pressure |
| 2 | (Dis)comfort with the new or with non-teacher feedback |
| 3 | Blended learning in the LangLit Discipline |
| 4 | Students in Blended Learning I: Independent Research or a facet of it… |
| 5 | Students in Blended Learning II: Digital Generation or a facet of it… |
| 6 | Disjuncture between students' views on group work and their actions |
| 7 | User-friendly Platforms |

Table 10. Themes: FGIs 2 and 3

| | | | Interview 2 Themes | | | | | | | Interview 3 Themes | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Ability Groups** | **Names** | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| Class 1 | High Ability | Don | 1 | 2 | 1 | | 2 | 7 | 2 | 2 | 2 | 7 | 1 | | 1 | |
| | | Tim | | | | 1 | 2 | 7 | 1 | 1 | | 6 | 1 | 1 | | 1 |
| | | Aron | | | 3 | | 3 | 6 | 1 | 2 | 1 | 6 | 1 | | | |
| | | Ezekiel | | | 2 | 1 | 2 | 7 | 1 | 2 | 3 | 7 | 2 | | 1 | |
| | Middle Ability | Kelly | 1 | 4 | 1 | | 1 | 3 | 1 | 6 | | 3 | | | 1 | 1 |
| | | Navin | 3 | 4 | 1 | | 3 | 4 | 3 | | | 3 | | 1 | 2 | 1 |
| | | Georgia | | 1 | 1 | | 1 | 3 | 2 | | | 3 | | 1 | 1 | 3 |
| | | Nathan | | 4 | 1 | 1 | 1 | 4 | 3 | | 2 | 6 | | | 2 | 3 |
| | Low Ability | Pran | | 2 | 3 | 2 | 1 | 4 | 2 | | | 3 | | 1 | 2 | 1 |
| | | Hugh | 1 | 3 | 4 | 1 | 1 | 5 | 3 | | | 2 | 2 | 2 | 3 | 2 |
| | | Janson | | 3 | 2 | 1 | 2 | 6 | 2 | | 1 | 1 | | 1 | 2 | |
| | | Leejay | | 3 | 3 | 1 | 2 | 3 | 3 | | | 2 | 1 | 1 | 2 | 1 |
| Class 2 | High Ability | Jerome | 2 | | 4 | | 5 | 3 | 3 | | | 1 | 1 | 2 | 2 | 4 |
| | | Sally | 2 | 1 | 5 | | 2 | 3 | 3 | | | 1 | 1 | 2 | 4 | 4 |
| | | Regina | 2 | 1 | 4 | | 3 | 2 | 2 | | | 2 | 1 | 2 | 2 | 3 |
| | Middle Ability | Daryl | | 2 | 6 | 1 | 2 | 4 | 2 | 1 | | 4 | 1 | 1 | 2 | |
| | | Mike | 1 | 1 | 5 | 2 | 2 | 7 | 2 | 1 | | 5 | 1 | 1 | 2 | 2 |
| | | Nalany | 2 | 1 | 1 | | 1 | 5 | 2 | 1 | 1 | 3 | 1 | | 2 | |
| | Low Ability | Enzhan | 1 | | 5 | | 2 | 3 | 2 | | | 4 | 2 | 2 | 2 | 4 |
| | | Noel | | 1 | 3 | 1 | 1 | 5 | 1 | | | 2 | 1 | 1 | 2 | 4 |
| | | Jack | 1 | | 4 | 1 | 1 | 4 | 2 | | | 5 | 1 | 2 | 2 | 3 |
| | | **Total** | 17 | 33 | 59 | 13 | 40 | 95 | 43 | 16 | 10 | 76 | 18 | 21 | 37 | 37 |
| | | **Percentage** | **5.7** | **11.0** | **19.7** | **4.3** | **13.3** | **31.7** | **14.3** | **7.4** | **4.7** | **35.3** | **8.4** | **9.8** | **17.2** | **17.2** |

### *5.2 Theme 1: Conundrum of Time and Pressure*

This first theme examines the conundrum of both time and pressure that students were caught in. Whilst all of them agreed that there were clear benefits in the use of blended learning and lessons were enjoyable, they did not participate as actively as expected. Often in a group of three students for the HL and four students for the SL, only one to two students participated actively. The rest of the silent observers cited time constraint and pressure, both from peers and academic performativity, as leading factors. Accordingly, this theme examines (1) the time constraints that students faced in terms of demands of the subject within the IB curriculum, and (2) the ironic rhetoric of the students and the conundrum of pressure that students experienced in the blended learning.

#### *5.2.1 Conundrum of Time in LangLit*

Students on this IBDP programme were often time-starved, given the demands of six subjects that require continuous assessment. As such, teaching tended to be top-down in a bid to 'save' time. In fact, students from this school were more comfortable

with this method of teaching. Consequently, introducing blended learning into the curriculum could possibly be regarded as a "time-consuming" burden for students (Kelly, Interview 2). This was especially problematic when students found themselves pressed for time and would often revert to assessment priorities. For instance, when asked about their apathetic participation on one of the online forum group discussions, they claimed that they were "rushing" internal assessments (IA) (Nalany, Interview 2). IAs were a critical part of the IBDP requirement and students tended to "prioritise … [the ones that were] more urgent" not because they had "left [them] to the last minute [but rather], everything [was] coming in all at once" (Ezekiel, Interview 3). However, students were aware that because they had to "assemble everything last minute", they might not "have … a very good understanding of the language features" (Nalany, Interview 2). This was reiterated in Enzhan's group who rushed through in two days to complete the work and acknowledged that they "didn't really take … ownership of [the] Wiki … [and simply] plough[ed] information into it" (Enzhan, Interview 2). This conundrum of time did not only apply to situations where students were torn between high-stakes examinable tasks and regular classwork, there were also others who found that they were struggling for time simply because the nature of the subject had "a lot of content" (Navin, Interview 2). As a result, because of the amount of reading that they were expected to complete, there was "very little time to finish a lot of stuff" (Navin, Interview 2).

However, another group felt that it was not a matter of "time constraint" (Don, Interview 3) but rather having group tasks online were "different" (Regina, Interview 2). Online tasks were regarded as more time-consuming than worksheets. However, Navin admitted that even with "the time constraints and all the other commitments … online [activities] were okay, not bad" (Interview 3). The flexibility of online tasks where everyone did not have to be physically present meant that they could "take … [their] time … to finish the work, at … [their] own time, own pace" (Interview 3) and this was beneficial.

In short, though the students felt that online work was time-consuming, they admitted that it was not simply just blended learning but the discipline of the subject

and more importantly, the demands of the IBDP curriculum. The conundrum of time was clearly a key factor that students considered whilst they engaged with blended learning. Given that there were no immediate tangible results that students could garner from the activities, and when pressurised for time, activities on the online platforms were regarded as expendable.

### *5.2.2 Conundrum of Pressure in LangLit*

This section explores the pressure that students felt when engaging with ICT in their learning. This pressure appeared to arise, namely, from what they perceived as peer evaluation and the demands of graded and/or individual work.

Though students agreed that working in groups was beneficial and time-saving, some of them were also stressed by what they felt was peer judgment. For instance, when asked if students preferred the traditional top-down teaching method as compared to online learning, Kelly fancied didactic teaching because there was less peer pressure. She felt "a bit pressurized because other people [could] see what [she was] … typing at the moment" where she might "not have everything thought" out (Interview 2). Interestingly, in Interview 3, Kelly shared that this same peer pressure was beneficial because it forced her "to take down notes" and keep up with "the lecture" and hence, compelled "to keep working" (Interview 3). Nonetheless, she was still uncomfortable with her peers "watching [her] … thought version" (Interview 3).

In addition to peer pressure, one of the findings that emerged from the interview was the conundrum of academic performativity, which will be further discussed in section 5.7. For instance, when time-pressed, students resorted to prioritising which in this case meant the completion of graded work. This was despite "the lessons within school hours" which allowed them to "learn quite a lot of stuff", but with the looming mid-year examinations, students tended to finish their graded work "before the online work" (Navin, Term 2). This focus on teacher's feedback was echoed by Kelly who seemed to ignore the peer marking and instead preferred the teacher's "edit[s] [of] the essay questions" (Interview 2). After all, if the work was

unmarked by the teacher, then “there [was] nothing to study” and they would not know what they “should do for the test” (Jerome, Interview 2).

In sum, the conundrum of time found that whilst students agreed that there were benefits to the adoption of blended learning, the demands of IB meant that they would rather focus on high-stakes examinations. Additionally, the flexibility of logging in at their own convenience, as afforded by blended learning, was deemed as problematic, especially in group tasks that would benefit from the presence of all members. Students were not only caught in a conundrum of time but the conundrum of pressure as well where they admitted to feeling pressurised by what they perceived to be peer judgment. The conundrum of knowing that groupwork was beneficial and yet perceiving it as a classroom strategy with no clear advantage to the examination requirements highlights a key issue for the students which is further explored in section 5.7.

### *5.3 Theme 2: (Dis)comfort with the New or with Non-Teacher Feedback*

This theme examines students’ discomfort with anything aside from what they had previously been used to and non-teacher feedback. The three findings presented below show students’ (dis)comfort with (1) new classroom learning strategies and (2) (2) minimal teacher feedback and handholding.

#### *5.3.1 (Dis)comfort with the New: Classroom Learning Strategies*

Though this was the so-called digital generation, which will be discussed further in section 5.6, students were conditioned to traditional methods of classroom teaching and learning. Consequently, their learning and expectations were interestingly different from what was expected of them. For instance, students insisted that they needed to complete their online tasks together, regardless of the convenience of online learning which purports flexibility in that students did not need to meet physically.

Extract 1: Interview 2

**Interviewer**: But the thing is that the time lapse is for you to go in at your convenience …
**Don**: **No. We don't do that.**
**Interviewer**: Why?
**Don: Ya no no but we don't do that.**
**Inteviewer:** Ya, why?
**Don: Well like most people don't do that. Because it is like umm…no…it is more like an assignment, so we just take like one time shot, like essay.**
**Interviewer**: So, you see more as an assignment and prefer to finish it at one go?
**Don: Something like that. Yes.**

As seen from Don's responses, students had specific conceptions of what constituted an assignment and how they should be completed. Consequently, despite the assignments being placed on different platforms, they would rather complete them in the way that they were used to. Because whilst forum was not "a bad platform for discussion," the problem was that students were "not used to that kind of forum platform" (Ezekiel, Interview 3). Furthermore, "it [was] easier to voice out what [they were] thinking … instead of typing it out in actual words" (ibid). To students, writing as compared to speaking, seemed more challenging because "the thought-process between speaking and typing is quite different" and in terms of a discussion, it was easier to do it face-to-face because "it was much faster, and to the point" (Tim, Interview 3). Yet students also highlighted that they tended to automatically adopt a different register for both speaking and writing, be it on the forum or for an academic piece of work. As Ezekiel explained "oral form is more colloquial … it's much easier to express what you are trying to say rather than typing it out" (Interview 3). When asked if he changed his register to a more formal academic tone whilst writing, Ezekiel confirmed with an emphatic, "yes" (Interview 3).

Likewise, in classroom teaching, there were students who indicated that they preferred the lecture format. As Nathan explained, "it [was] just easier to follow … you [could] just listen and copy. It's … what I [was] more used to" (Interview 3). The preference for the familiar also applied to students engaged in groupwork. For instance, in group tasks that required them to complete an essay, students complained that though the essay was divided into different parts, they still needed to do

individual work and their only gain was a shorter section. Furthermore, they had to contend with coherence issues.

Extract 2. Interview 2

**Sally:** … I thought it was a bit weird that we would be doing it as a group because **it's just weird writing essay in a group of three** … it's weird.
**Interviewer:** … Jerome?
**Jerome:** Yeah, **I second Sally's opinion** … **I provided the structure of the essay, in essence I did most of the analysis, in that sense I feel a bit of forced because I was telling them what to say and I don't really know if they had anything, if they could had add anything else** …
**Sally:** I added stuff.
**Jerome:** I mean it's okay, if someone did all that to me, I would like that too. .. [But] **it's not really the best way to do analysis**, especially seeing in the end, **you still have to do your own.**
**Sally:** Yeah, **it was more like just splitting the essay up and making people do chunks, so it wasn't like we were doing together**. It was more like we just got to **write shorter essays**.
**Interviewer:** You were supposed to do it together.
**Sally: Yeah, but it's hard to do it together, especially online because where at home it is hard to communicate online … and discuss.**

Students were clearly uncomfortable with online groupwork, despite the convenience of online platforms, and though they would demarcate work such as blogs and wikis, they did not regard an essay as a viable task that could be split. Nonetheless, in arguing that the essay would still be an individual effort meant that students saw the task as an actual piece of graded assignment and not one for collaborative peer work, which will be further discussed in section 5.7.

### *5.3.2 (Dis)comfort with the Non-Teacher Feedback: Handholding*

Similarly, students were accustomed to teachers' handholding and clearly uncomfortable with the unknown, particularly with 'new' tasks or non-teacher feedback. Nathan's discomfort with being the first in unchartered waters resulted in him "wait[ing] for someone to do it" (Interview 2). This discomfort with the unchartered could also mean that students were less likely to venture or 'innovate' on the task given. This is not unlike what was discussed in the previous section on the discomfort with new classroom strategies (i.e. online forum). But more importantly,

Nathan's discomfort underscored students' awareness that there was less 'policing' by the teacher and hence, no accountability.

Students also displayed signs of uncertainty when they had to make decisions outside of what had been taught in classrooms:

Extract 3. Interview 2

> **Jerome**: One thing that pops out was in the forum, at least from my understanding, you have to have **several different opinions** on the motivation of the character … **But from the content we got from the lesson,** it seems that **we only really have one. There's only one perspective to view the content**. So, in that sense, **it was difficult to conduct a conversation about it** … so … we … ended up … talking to ourselves. And then I agree with this post; *I agree, I agree, I agree* because there's really only one way to view it.

As shown in the above extract, Jerome's rationale in not being able to proffer differing perspectives was because they were not given other perspectives, hence, laying the problem with the teacher. Another source of contention for students was what they regarded as a lack of student guidance and feedback. In their first blog, guidelines were deliberately kept general and students were expected to conduct their own research. Students' feedback was that they were confused and preferred more guidelines.

Extract 4. Interview 2

> **Navin**: … For that particular blog, **we were kind of confused** ... **So, in the end, we researched on how to do a blog**. Or just did it **from the knowledge in our head**, what it might look like, what we believe of how it looks like.

Students reflected that the lack of scaffolding meant that they were relying on either google search or their previous experiences. As such, their need for more scaffolding was made apparent especially when students indicated that the follow-up lesson which included a summary of key learning points and oral grading was most useful. As Daryl shared, without being given detailed guidelines meant that they were "forced to research on … [their] own" and whilst that helped in their learning, what was "more useful" would be "a bit more pointers or tips" that they "could use during the actual process" (Interview 2). Similarly, tasks given without detailed individual feedback saw students' reluctance in accepting them as revision materials. Instead, they only

referenced those that had “already [been] corrected” (Georgia, Interview 3). All of which clearly displayed the students’ fixation on always needing the teacher’s stamp of approval on their work.

In summary, the findings presented here highlight the (dis)comfort that students had with the new and their subsequent resistance to new classroom learning strategies and non-teacher feedback.

### *5.4 Theme 3: Blended Learning in the LangLit Discipline*

This theme focuses on the pragmatic nature of the discipline and the blended learning adopted and students’ feedback of LangLit. Students reported that relevance and applicability of their learning to the real world were instrumental to their learning. As a result, this theme explores (1) the pragmatic nature of this subject and its applicability to the real world and (2) students’ perception of this discipline with blended learning.

#### *5.4.1 Application to the Real World: Pragmatic Nature of LangLit*

Most of the boys from the same school were exposed to the teaching of literature with limited exposure to non-literary texts in their Language Arts programme. Accordingly, these students, in their first year of the IBDP, found that the nature of the LangLit syllabus was a very different experience and they especially enjoyed the language part of this subject. As Don shared: “It’s very different from IP because what we have been doing from Year 1 to Year 4 has been basically lit, not really language … so it’s completely different” (Interview 2). Most students found “the language part” most enjoyable because of “the freedom of choice” given in the IAs and these experiences were regarded as “quite refreshing” (Jerome, Interview 2). Sally, though from another school, went through a similar Integrated Programme (IP), also found the language component of the LangLit “interesting because it [was] applicable to real life” (Interview 2). She noted that the text-types (e.g. advertisements) and topics studied, affected “culture” and were “happening in the real world” (Interview 2), which made the subject relevant. Given that this was their maiden exposure to this subject, the general sentiments were that they enjoyed the subject: “I like it better

than lit" (Don, Interview 2) because "there [was] more spontaneity" (Jerome, Interview 3). In fact, the language "felt less academic" (Regina, Interview 3) and hence, "a lot more interesting" (Sally, Interview 3) and "useful in the future" (Daryl, Interview 2).

Despite the novelty of the subject, students cited the pragmatic nature of this subject as an important factor of consideration. The subject was regarded as "more relevant, … straightforward" (Aron, Interview 2) and "practical" (Hugh, Interview 2). Pran also found that he could "apply it" to his other subjects and hence, "it was more helpful (Interview 2). The pragmatic nature of the subject, particularly, the study on the function of non-literary texts for the students were received with approval because of the clear relevance to the real world. Because they were exposed to "a variety of topics … it's quite pleasing to learn more about how language is being used in current society" which provided students with "different perspectives" (Mike, Interview 2). Mike drew on one of the online tasks that required a deconstruction of video trailers and shared that he "never thought we [could] do that. I [found] that quite fun and interesting" (Interview 2). Hugh found "the Langlit experience … ha[d] been very enriching" and "a lot more useful" as compared to IP which was "limited to a lot more lit stuff" (Interview 3). The literature component was built on their prior knowledge taught in their IP years and "the lang portion" was deemed as most beneficial because of its applicability to the real world (Noel, Interview 3). The "eye-opening" (Nalany, Interview 3) aspect of the language aspect of LangLit provided them with better understanding and the pragmatic application to real life accelerated their learning process. Even the so-called boring parts of language where they had to memorise the names of the rhetorical devices were regarded as "a good learning experience" because they now had "a name … tagged" to these rhetorical devices they [saw] around them daily (Daryl, Interview 3). Furthermore, as Daryl rationalised, "in this modern age" with "so many technological advances … it [would] be … fool[ish] not to take advantage and use [them] to further enhance [their] learning styles and methods" (Interview 2). In short, students felt that the real-life relevancy of the subject was both practical and current to their lives.

Whilst most of the students, in Interview 2, agreed that the language component had more relevance to real life, by Interview 3, they found that there was relevance in both language and literature. For example, Navin who had constantly highlighted that LangLit was a difficult subject, in terms of content, discovered that "Langlit had made … [him] like English more" (Interview 3). When he reflected "at how deep *The Great Gatsby* was and [he was] like 'Wow!" He never imagined that the literary devices studied in class could be "applied to daily life" (Navin, Interview 3). Georgia too found "the language part … more interesting" because she began "to understand why … advertisers use advertisements" to suit and support their objectives (Interview 3). However, she soon realised that the themes in *The Great Gatsby* were relevant even in today's world (ibid). The applicability to real life was clearly important and students found that learning to understand "social cues" (Tim, Interview 3) and "implicit meaning" (Don, Interview 3) in texts could be "useful to what … [they] were going to do next time" (Tim, Interview 3). Aron too "appreciated the amount of depth" given to the study of "a single novel" (Interview 3) which "really helped … [him] to look at issues and situations … from multiple perspectives" (Interview 3). More importantly, blended learning was helpful because it served as a bridge between the real world and their curriculum. After all, "what better way would there be to study media through media" (Aron, Interview 3). Don added that "blended learning not only … helped … [to] construct texts so that [they] could understand the elements better" but also put what they had studied "into practice" (Interview 3). Thus, the applicability to real life complimented with the use of blended learning helped to enhance their learning of this subject.

In general, students agreed that blended learning included "hands-on ... [and] … experiential learning" (Daryl, Interview 2). After all, just listening to "lectures was boring" (Janson, Interview 2) and it was only when the students "actually [did] it" that they felt that they could learn (Janson, Interview 2). In short, LangLit is akin to "the modern world today" (Aron, Interview 2) and so was "useful" (Georgia, Interview 2).

*5.4.2 Application of Blended Learning in LangLit: Students' Perceptions*

Besides the element of novelty, Ezekiel also found that LangLit, even for the literature examination papers, was not about answering "questions … but instead … [about] drawing evidence from the outside world" (Ezekiel, Interview 3), thus, adding merit to the study of this subject. It was not merely "what [was] in the book and what [was] written" but rather, "it [was] also what [was] happening around it that [was] affecting what's written" (Don, Interview 3). This is a critical element of understanding displayed by Don because it reflected the objectives of LangLit. IB's objectives in the creation of this subject was to allow students to understand that texts needed to be understood in the culture and context in which they were written. Tim exhibited similar understanding where he realised that "the questions … [were] context involved" and "could be anything, so it [was] impossible to spot the question unlike in IP" (Interview 3). Subsequently, they would "have to read outside of what [was] in the novel to ensure that [they were] sufficiently prepared" (ibid).

However, though the students enjoyed the language component of this subject more than literature, the syllabus required interrelated links and should not be regarded as two separate entities. Sally agreed and realised that "it [was] an interesting way to learn language and lit at the same time" and was "a good way to blend two different types" (Interview 2). More importantly, "it seemed like a very natural way to learn language" (ibid). This understanding that language and literature were not separate entities is also echoed by Tim who found that it was only through "analysing language" that they would "learn how to [read] social cues" or for lack of "a better phrase, … read between the lines so that" they could "gauge emotions" and understand "implicit meaning" (Interview 3). This was clearly different from what they had been previously exposed to. Furthermore, the inclusion of blended learning proffered clear merits for their learning. To Aron, "it was quite cool coz it [was] like hit[ting] two birds with one stone," where students not only studied the literary text *The Great Gatsby* and the practical aspects of the language component but the online activities which acknowledged them as the so-called digital natives (Interview 2).

Another aspect worthy of consideration was the use of blended learning in the teaching of this subject. Students generally agreed that blended learning was a useful method of enhancing their learning experiences. It was not merely the convenience of accessibility but the online platforms provided them with opportunities to learn from "the different writing styles" which were "helpful" (Pran, Interview 2). Nathan found blended learning quite useful "for Paper 1, because [they got] … to look at a lot of different types of text types" (Interview 3). Georgia liked blended learning because it was not simply didactic teaching and the online tasks required them "to think and write, even though it [might] be quite hard" (Interview 3). Yet others found blended learning as one that afforded them hands-on practice which was beneficial because it was a way of putting their understanding into practice. In sum, blended learning "allowed … a greater depth of freedom in … learning" and students were "not … constricted to just simple classroom setting, like the style of lectures" (Mike, Interview 3).

Enzhan too found that "blended learning … helped [to] consolidate everything you learn" in class (Interview 3). Furthermore, he felt that "there [was] only so much you [could] do within the classroom lecture style" and instead when they took their learning online, they appeared to gain in terms of time because the peer work on GoogleDocs were resources that allowed them to attempt other questions beyond what was assigned (ibid). Furthermore, Google Drive allowed quick and ease of access and organisation (Noel, Interview 3).

However, in Interview 3, whilst students were agreeable to the benefits of blended learning, they were also more specific on the aspects of blended learning that could better support their preparation for the examinations. Whilst students did appreciate the online learning experiences, they were also concerned with an overuse of computers. Aron was worried that they might not have enough practice with "writing with … a pen" (Interview 3). Don observed that "it [was] easier to edit when … typing" (Interview 3). However, as a "fast typist", Aron's concern was that his thought-processes tended to flow at a faster pace than writing, and this was problematic

because writing was a "skill needed for the exam" (ibid). In short, they needed examination practice – to think and write coherently within the allotted time.

Nonetheless, this was not a subject without challenges. Students found that it was demanding with its broad scope and the seeming large amount "of work coming from LangLit" (Kelly, Interview 2). The need to deconstruct a text and understand the technicalities of a text was also highlighted as a concern: "You must know the terms to describe all those … also at the same time … [there is also] literature … there's quite a lot of stuff" (Nathan, Interview 2). In short, as Janson shared, "Langlit had been **very challenging** … because there were **a lot of new things**" (Interview 3).

Another major challenge for this subject was the study of English literature. Some students who were not as proficient with English found that literature was a "very difficult subject because … there [were] deeper meaning[s]" (Janson, Interview 2). However, he admitted that literature had helped him to "identify the tone [in people's] speech … [in] the way they actually [said] it" and in that way, he realised that words could "actually carry different meaning[s]" (Interview 2). Navin too found that they needed to acquire a level of understanding before being able to handle the subject efficiently. Students realised that one of the key issues was that they were not quite as "well versed" in their subject matter (Tim, Interview 3).

In short, students regarded the applicability of the subject to the real world and pointed out that the learning of non-literary texts instrumental for their learning. Whilst all agreed that blended learning was practical in aiding their internalisation of the content, there were also concerns in how it could perhaps hinder their preparation for the examinations.

### *5.5 Theme 4: Students in Blended Learning I: Independent Research or a Facet of It*

This theme explores students' display for independent research. One of the requirements of the IBDP was that students were supposed to be independent learners and thinkers. However, the findings presented in this section show that this idea of independent research may not necessarily subscribe to the IBDP's definition of

an independent learner and thinker. Accordingly, this theme examines students who reluctantly become independent researchers and what students perceived to be independent research.

### *5.5.1 Reluctant Independent Researchers*

Students were tasked to create a Wiki with minimal instruction so as to encourage them to do their own research. Though students complained that there was a lack of guidelines given in the construction of a Wiki and blog, they were more than capable of using the technological tools at their disposal to complete their task. Students clearly knew how to google and imitate the formatting of Wikipedia and when questioned further, Mike explained that he used "different sources instead of one source on Wikipedia" (Interview 2). Likewise, Nathan's group used GoogleDocs to construct the Wiki on Fitzgerald's background. Each student was assigned a different task and they imitated the headers that Wikipedia used. WhatsApp was used predominantly as a communication tool before one representative logged into LMS to construct the Wiki (Navin, Interview 2). It was not just in doing research that students were able to leverage on the world-wide-web and referenced different sources but even when they had to work on a task, they employed the technological tools at their disposal to complete it. As Jack explained, "we did research and … put the parts we wanted … in GoogleDocs as a draft first and then created a website … [to] transfer it" to LMS (Interview 2). Consequently, upon reflecting on the activity, they observed that "creating our own Wiki and putting the points … was quite meaningful. The work felt like, it [was] made by ourselves without much guidelines" (Noel, Interview 2). Ezekiel noted that they were "forced to think for [themselves] … on the different forums and wikis" (Interview 2). In acknowledging that text types could not be reduced to worksheet exercises meant that students were aware of the need to adhere to the authenticity of the given text. In some ways, they displayed the traits of the so-called digital generation by leveraging on technological tools (i.e. the world-wide-web) in a bid at independent research.

Nonetheless, though students preferred blended learning and found that "online tasks [were] … sometimes time-consuming and challenging" because they had

"to go online to research", they realised that there were not only "a lot of online resources" but more importantly, they were exposed to differing perspectives (Georgia, Interview 2). After all, just having top-down lectures from teachers were "boring … [where all you do was] just listen, listen, listen but you were not doing anything" (Janson, Interview 2). This was problematic because students might not "know what [was] going on" and for students like Janson, he could "only learn when [he] actually did it" (Interview 2). Pran found that blended learning "forced [him] to research … before [embarking on] the task itself" (Interview 2) which he would not do if it was didactic teaching (i.e. lecture). Furthermore, he would probably not "remember" much from the lecture unlike an online task where the 'forced' research allowed him to "remember [the content] much better" (ibid). In reflection, the independent research not only "saved time" but also allowed him to "learn more," in terms of retention of knowledge (Interview 2).

In short, students were more than capable of conducting online research and found the process helpful with their learning despite it being time-consuming and challenging at times. Their idea of independent learning was often one where they felt 'forced' into independent research via the Google search engine which often did not extend to independent learning or critical thinking. However, this issue with critical thinking was often closely correlated with the examination system, which will be further elaborated in sections 5.5.2 and 5.7.3.

### *5.5.2 Independent Learners in Blended Learning*

Students were asked to consider how blended learning helped them to develop as an independent learner and thinker in Interview 3. Students shared that the online tasks played a key role in their learning.

Extract 5. Interview 3

**Tim**: As an independent thinker or learner … the use of all these forums and blogs … **teach us how to use online materials more effective[ly] in our learning**. It shows us how to gather knowledge, to use online resources to do research.
**Interviewer**: For example?
**Tim**: For example … like the Wiki online ... let's say our knowledge of the book is limited … **we have to go online, search … and read … Wiki and SparkNotes about certain characters or themes to understand more of what's going on** …

For Tim, he had become more effective as a Google Search user and was an independent learner in the sense that he was comfortable with searching online. There were also others like Ezekiel who regarded blended learning with minimal teacher's guidance as an opportunity to develop their own independent learning in the way of answering questions.

Extract 6. Interview 3

> **Ezekiel**: … **blended learning is different from classroom learning** … the question is posted online, **and we are left to do our own research or figure out what the question demands from us and how to answer it in a way that's appropriate**, **so I think that's how we nurture our independent learning.**

Both Don and Aron too agreed that blended learning had afforded them opportunities in understanding their learning materials better (Interview 3). Navin observed that it was through blended learning that he refined his "techniques of research" which was "important for [his] extended essay" on chemistry (Interview 3), thus displaying understanding that these research skills were inter-disciplinary. Regina noted that it was "independent learning" such as doing their "own research" that would be critical for their examinations (Interview 3).

The students measured their independent learning from the way they could proceed with a given assignment on their own. For example, though they might be working in group of threes on a given essay, the essay needed to be written "independently" and what they gained in their collaborative groupwork was merely peer support (Enzhan, Interview 3). The online platform allowed them to "openly see each other's work, comment and give [their] inputs," which consequently, drove them "to do more research" (Jack, Interview 3). In fact, peer collaboration not only allowed them to engage in "independent research" but the co-construction of a larger resource database (Mike, Interview 3). Furthermore, the varying perspectives when collated together provided them with "a better understanding on the subject" (ibid).

Yet, there were others who felt that they were only "independent learners" in their academically strong subjects (Navin, Interview 3) or others who defined independent learning as one totally devoid of teacher's guidance.

Extract 7. Interview 3

**Jerome:** As far as independent learning goes, I hate to be the wet blanket, but in my interpretation**, independent learning would imply that you would go home and read the text and do some research on your own without prompting, but honestly speaking, does that really happen**? **It doesn't really happen** because either we are too busy or we forgot about it, IB gets stretched. In that sense, **independent learning … hmm … some questions there**.

Sally added that "it [was] not the fault of learning, self-learning thing," but rather it was a personal decision: "If you are not going to study by yourself, then you are not going to study by yourself" (Interview 3). However, the online tasks that compelled them "to do background research" was some sort of "forced independent learning" (ibid).

The findings presented in this section highlight students as being initial reluctant researchers and yet possessing the means to engage in research, be it a simple Google Search. Nonetheless, they regarded themselves as independent learners, forced either by the nature of the online tasks given or by the need to supplement their knowledge in preparation for the examinations.

*5.6 Theme 5: Students in Blended Learning II: Digital Generation or a Facet of It…*

This theme explores students' perceptions on the use of ICT in their blended learning whilst taking into account the students as so-called digital natives and the academic performativity culture of the Singapore education system. The findings in this section focuses firstly on students' perceptions on the use of technology in their learning and secondly, how they employed technological tools in their learning.

*5.6.1 Automatic Use of Technology: The Need for Warp Speed*

Students reported in this current study that they clearly belonged to the so-called digital generation. Sally explained that "online learning was great especially because for us, it [was] not even like a novelty anymore", it was second-nature to them. Hence, the convenience "made it easier to learn" and besides, it would be difficult to lose notes placed on GoogleDocs (Interview 3). Regina noted that since "everything is consolidated in one place" and they could "find everything" at any time, it was very

useful (Interview 3). More importantly, online learning used “methods that [they were] more familiar with as [they were] the more tech-savvy generation” (Jerome, Interview 3) and consequently, learning became “very effective” (Regina, Interview 3).

In fact, students’ use of technological tools appeared to be automatic where they instinctively drew on ‘correct’ technological tools for each task. For instance, when asked if they used Skype, they confirmed that besides GoogleDocs, they tended to Skype each other “to do work” (Ezekiel, Interview 2). WhatsApp was another technological tool used as a counter-check or clarification for their homework. Students’ preference for GoogleDocs was apparent in the way they used it to organise and collate “notes … for other subjects … [such as] history” (Enzhan, Interview 2). It was “easier … because [there was no need] to carry [a] bunch of paper … [as everything was] on GoogleDocs” (ibid). Janson shared that he tended to lose his physical notes though he got “dizzy … sometimes” reading online (Interview 2).

When asked on their thoughts about using blended learning in the classroom, Jack felt that “blended [learning] … [is] definitely the choice because … it gives variety to the method of learning” (Interview 2). As the so-called digital generation, students responded more favourably to the use of the online platform. Some of the reasons given were that it offered them “a certain degree of freedom … [and] so [they] had more time to think” through. In addition, with the group discussion, they found it relevant and received “more input” than just thinking through individually (Mike, Interview 2). As Mike summarised, this “discussion-based sort of learning” was good because whilst he gave “other people’s output” he “also [got] input” for his “personal thoughts and stuff” (ibid). Nalany added that the use of “technology [was] kind of more convenient because … [they] use[d] technology on a daily basis” (Interview 2). Nonetheless, groupwork was labelled as “extra” because it was non-examinable and hence, when confronted with “too much” work, they “don’t go online” (Nalany, Interview 2). However, given that they were mostly humanities students, they agreed that blended learning was probably better for the IB.

Extract 8. Interview 2

**Mike:** I think blended learning is a lot better because … [with] a full humanities combination, **I have more than my fair share of lectures already** and adding Langlit as another one will make the entire IB experience a lot worse … **blended learning is a lot more interactive, much more fun. It's an element of interest because you get the opportunity to learn stuff in a different manner. It actually sort-of increase my interest in the subject** as well. So, **I think it's kind of good**.

Mike's reflection highlights a generation at ease and highly competent with technology. In particular, the "hands-on aspect where [they] were forced to apply instead of just absorbing and regurgitating on paper" was regarded as a form of "experiential learning" which was "good" (Daryl, Interview 2).

It was, thus, unsurprising that as so-called digital natives, the use of ICT could be advantageous especially when they could "listen to music and watch video[s]" (Tim, Interview 2) whilst doing their work. They also preferred "typing to writing" (Nathan, Interview 2) and felt that ICT "helped … [them to] understand" the language component (Enzhan, Interview 2). In fact, being forced to take on "the position of a writer" so as to "understand why certain writers write in a certain way" helped them to further appreciate the purpose and function of the given text type (Enzhan, Interview 2). After all, doing a paper imitation of a blog and wiki was less authentic and online tasks "engaged" their "thoughts and opinions" (Kelly, Interview 3).

Even as students engaged in the given tasks, their definition of beneficial blog writing was "the level of interestingness" (Jack, Interview 3). The task of unpacking a rhetorical device allowed them "to go in-depth" (ibid). To Pran, however, there was little difference between online learning or otherwise because he would still employ the same research skills, thus, displaying the level in which these so-called digital natives were comfortable with the use of technology. Yet, there were others who noted that online learning was only good for specific aspects of LangLit. For example, it was deemed as "more suitable for Paper 1" and lecture format preferred for Paper 2 (Nathan, Interview 3) because that would be the most useful in the examinations (Navin, Interview 3).

The findings show that these so-called digital natives drew almost instinctively on the appropriate technological tools for their use. Their understanding of being tech-savvy was the ability to use technology but "not necessarily using technology to do everything" (Jerome, Interview 3) and hence, might not regard technology as quintessential to their learning.

*5.6.2 Fickle Interest: Not All that Is Technological is Good*

Generally, students agreed that online learning was a "good experience" (Mike, Interview 3) and the flexibility of going in at their own time was regarded as a positive one (Nalany, Interview 3). Furthermore, online learning encouraged "creativity" and catered for a "stimulating learning environment" (Daryl, Interview 3). Blended learning "was very good because it allowed" exploration of "different outlets of online resources" and more importantly, they were "given the opportunities to learn in different ways" (Daryl, Interview 3). Mike added that "a lot of resources [could] be found online" and it was always "better to have a greater variety of teaching styles" (Interview 3). Blended learning provided them with "greater freedom" in choosing the ways which they wanted to "study" and was a "good experience" that would "help in university education" (Interview 3). Thus, "learning the skills early [was] actually quite important" (ibid). However, students still preferred the "traditional classroom setting because … [they] were more focused" (Nalany, Interview 3). Not all students were comfortable with the use of technology. In the initial exposure to blended learning, students preferred writing the assignment than logging into Google Docs (Jack, Interview 3). However, at the last iteration, he shared that his familiarity with typing meant that he now typed "faster than [he] wrote" (ibid), thus, displaying his quick adoption of technological tools. He displayed characteristics of a so-called digital native where, within a short time span, he could leverage on the technological tools "efficiently" (ibid).

As discussed in Theme 2, even though this was the so-called digital generation, students were uncomfortable with the 'new' (see Extract 3). For instance, when asked about their participation on a forum, students found that there was either little participation or that they were unsure about the task given.

Extract 9. Interview 3

**Interviewer:** … who has posted more than once?
**Mike: I posted once but I didn't see if there was any response to it.**
**Daryl:** I was very confused and didn't know what we were doing.
**Nalany:** Yeah, **didn't know how to write a forum**.
**Daryl: I didn't know** what we were supposed to … do.
**Interviewer:** Did you read the instructions?
**Daryl:** Yeah, is it the forum discussion? … **So, it is like a stream of continuous posts where like each person posts**.
**Nalany:** … the first one will write a question or something.

In fact, for some, being unsure of what they regarded as the right answer, they would rather wait till someone posted before adding their comments to it. Students tended to adopt cautionary behaviour where they would first ascertain the main points of what has been previously posted so that they could then "suggest some improvements", which bespoke of their hesitation in making the first *wrong* move (Janson, Interview 2). Yet others felt that a "proper discussion" could only be conducted "live" and hence, posting on the forum was not essential and rather "uncomfortable" because they "repl[ied] late" and there was little "live discussion" (Hugh, Interview 2). Online groupwork was not regarded as a viable technological tool because they had to be "online together" (Don, Interview 2) and/or engaged in "Skype call" (Tim, Interview 2) or chatting using the chat function in GoogleDocs. Students' perceptions that online groupwork mirrored that of classroom groupwork was not unique. Because, they were not pen-and-paper tasks, online assignments were problematic and consequently less "real" which tended to be "overlook[ed]" at times (Janson, Interview 2).

Nonetheless, students regarded blended learning as "more convenient" and "there [was] more freedom … compared to … written assignments", especially since they could draw on internet resources (Tim, Interview 2). Because of the flexible login times, blended learning was not as mentally draining as non-stop lectures (Ezekiel, Interview 2). Moreover, blended learning was "less dry … [because] there [was] more variation in the tasks" (Aron, Interview 2). Yet, in terms of collaborative work, students preferred all group members to be present for the discussion because the lack of face-to-face meant that they were unable to "interpret perfectly" what the other person

really meant, especially if they had problems expressing their ideas coherently in written format (Navin, Interview 2).

### *5.6.3 Technology as a Distractor*

One of the premises for employing blended learning for the students in this current study was to address the issue of time constraint. As such, students were encouraged to participate in the non-gradable online tasks. However, as Navin admitted, "blended learning [could] be useful" if there was actual participation but if nothing was done, then it was "quite useless" (Interview 2).

In using the internet, students needed to exercise discipline when surfing the world-wide-web. Consequently, there were students who acknowledged that that was an issue because they had "trouble focusing" and were "distracted easily" (Hugh, Interview 2). Janson echoed similar sentiments. Whilst he agreed that having a database of resources and being able to use the computer did make "learning faster" but you might inadvertently "forget" to complete the task at hand (Interview 2). Even though students highlighted that technological tools such as Skype or GoogleDocs' Chat was used as part of collaborative groupwork, there was always the danger that *those* would turn into a social chat. Consequently, collaborative work could be "unproductive" (Nathan, Interview 3). WhatsApp was also identified as another technological tool that was distracting. Without self-discipline, students tended to "go in to read that chat" (Navin, Interview 2). Nonetheless, despite, the potential distraction, WhatsApp remained a popular communication technological tool for both their learning and socialising.

Yet, there were others who maintained that it boiled down to self-discipline. For example, when asked if online tasks were distracting, Mike denied emphatically, "no, that's your focus. You are researching for the task itself" (Interview 2). Sally noted that there would "always [be] distractions" regardless of whether they were online or otherwise (Interview 2). After all, phone alerts were a potential distraction whether they were engaged in pen-and-paper or online tasks or not and thus, it was a matter of self-discipline. Moreover, the use of such technological tools could be "quite

situational" where if a student needed "help, then it [was] helpful" but otherwise, technological tools could potentially be "more of [a] distraction" (Mike, Interview 2).

Generally, whilst all students agreed that technology was useful but the use of the Internet and social media was clearly not without its distractions. Nevertheless, with self-monitoring and self-limiting, they could maintain the use of such tools with equanimity.

### *5.7 Theme 6: Disjuncture between Students' Views on Groupwork and their Actions*

This theme examines how students' views on groupwork on both LMS and GoogleDocs and their subsequent actions were in disjuncture. The construction of these online tasks was intended as a classroom learning strategy to either encourage students to explore aspects of the syllabus or as part of examination preparation. This section examines firstly the students' participation on online forums in LMS and secondly, on GoogleDocs.

#### *5.7.1 Groupwork and Its Seeming Benefits*

The consensus shared by students on using groupwork was that collaborative work was not only "fun" (Ezekiel, Interview 2) but that it also allowed students to engage with content outside of classroom time. For example, online group discussions allowed students to engage with the given topic over a span of one to two weeks and they could login at their convenience to work to complete the task by the given deadlines. Furthermore, work done by different groups allowed academically weaker students to "pick up … writing style" and expression skills which they found useful (Janson, Interview 3). Differing perspectives were regarded as beneficial and having a database of resources provided them with "a clearer picture" for their revision (Interview 3). Besides, because "it [was] collaborative, … It [was] a lot easier to learn when you [had] inputs from your friends as opposed to just yourself" (Sally, Interview 3). In general, students agreed that groupwork was beneficial because of its collaborative nature and peer learning.

From the interviews, students as so-called digital natives, enjoyed the flexibility or "freedom" (Mike, Interview 2) afforded by the online platform because they had more time to ponder over the issues at hand. Furthermore, students could tap into the strengths of group members and other groups. Blended learning "encouraged creativity" was also "different from the usual pen-and-paper assignment" which stressed a worksheet culture (Daryl, Interview 2). The opportunities given "to express [their] … thoughts more freely", especially in groupwork allowed them to "discuss, … share each other's ideas … and learn a lot of new things" (Daryl, Interview 2). Nalany concurred that the convenience of technology should be leveraged upon in class because they "used technology on a daily basis" (Interview 2).

However, the use of technology as an aid to pedagogy was not without its limitations: "There's [a] limitation because sometimes there are too much [work and] students … sometimes don't go online" (Nalany, Interview 2), thus, underscoring that regardless, of the benefits of collaborative work, students tended to prioritise. Another limitation was that students found it easier to coordinate discussion in a classroom setting compared to an online setting (Noel, Interview 2). Students' insistence that everyone needed to be present for any groupwork undermined the irony of their earlier rhetoric on the flexibility of online groupwork.

When given a group task, students also tended to adopt a *divide-and-conquer* attitude where sections would be parcelled out. This *divide-and-conquer* strategy was adopted for the creation of the blog, wiki and GoogleDocs essays. In any of their group tasks, work was "split … into sections" and each member would conduct their "own research and write-up" before "combin[ing] it" (Daryl, Interview 2). This division of labour could be done during class time with a nominated student eventually collating all the written responses. Depending on the nature of the task, students might complete the task on GoogleDocs and then "copy and paste everything" (Enzhan, Interview 2) back onto the LMS before having someone to do a final edit for coherence (Kelly, Interview 2). Whilst some of the students regarded this *divide-and-conquer* strategy time and effort-saving, they found that the work could turn out to be

fragmented where it became “very messy” (Janson, Interview 2) and the different writing styles “quite jarring” and “confusing” (Noel, Interview 2).

Additionally, “it was … weird writing [an] essay in a group of three” (Interview 2), where division of an essay was problematic in terms of a line of argument. As Regina explained, to write a coherent essay, one needed to “go along with the flow of [one’s] thoughts” and working in threes made it “very incomplete and weird” (Interview 2). This was especially when she had to write the concluding sections and felt like it was “writing from the bottom” (ibid), thus, highlighting that writing in chunks was not exactly conducive for learning. Working in groups had both positive and negative effects where “the good side” was that “each of us … had less work to do but the bad side” might result in an “analysis” that was not “cohesive” (Jerome, Interview 2).

Yet, the students insisted that blended learning did have its merits and that groupwork, especially online groupwork was appealing. Hence, they proffered the following solution.

Extract 10. Interview 3

**Sally: We could split the essays up, so maybe each person does an essay or two people do one essay** and then..
**Interviewer:** What's the difference between two and three?
**Sally:** … since there are too many essays, we could just print out everyone's essays and … we can all read it.
**Interviewer:** No, that was the idea. That's why it's on GoogleDocs, so that you can read each other's work.
**Sally:** Oh…
.
.
.
**Interviewer:** So you guys have to figure out a way and you have to let me know what's the best possible way in which you could do groupwork.
**Sally: I think group of two will do**.
**Jerome: That's possible**
**Sally**: **Because three is just weird. Two you could have a proper discussion**. I think mostly it is hard for three to be online at the same time.
**Interviewer:** Okay …
**Regina:** Yeah, **I think two would be a lot better.**

In short, they identified that it was a question of the number of people within a group that posed challenges to the success of groupwork. Instead, they suggested adopting pair-work as a classroom learning strategy to address this issue.

As a follow-up on this solution in Interview 3, Sally felt that “it's much better”, particularly because individual feedback was more valued than group feedback. Students preferred to know “if it's your problem or your friend's problem” (Interview 3) because that would help them in their examinations. Regina too pointed out that in not needing to wait for more than one group member meant enjoying more flexibility because she could work at her “own time” without wasting time waiting for others to finish their sections (Interview 3).

*5.7.2 Groupwork on Online Platforms*

Similarly, these so-called digital natives did not respond favourably to online forums. The challenges that arose appeared to be two-fold: (1) the lack of independence in navigating the ‘new’; and (2) the lack of experience in navigating the format of an online forum. The lacklustre uptake of online groupwork on the forum was highlighted by Jerome where he found that “it was difficult to conduct a conversation” when they had only been taught a single perspective and so they “ended up … talking to ourselves” and going “off tangent” (Interview 2). Students too found it difficult to navigate between traditional classroom and online learning methodology where they ended up writing “small paragraphs” that were akin to essays and were not remotely reminiscent of a forum (Regina, Interview 2). Online conversation was regarded as “very unnatural” and “very forced” (Sally, Interview 2), unlike a forum. Furthermore, they preferred face-to-face discussion on “the … direction” of the task and an online platform was challenging because it was “a bit hard to understand what others were trying to express” (Georgia, Interview 3).

Students have, throughout the interview, emphasised GoogleDocs as the preferred platform for online learning and given the examination culture that permeated the education scene, tasks were also given as part of examination preparation. Accordingly, one of these tasks placed on GoogleDocs, aimed at

addressing students' need for academic performativity, were essay questions (i.e. Paper 1). Again, within the group of three, students were expected to discuss and then work out a detailed outline and/or written response to the question. General feedback from students found that the work on GoogleDocs "seemed to be like groupwork" unlike a forum (Don, Interview 2) which Tim found was "not really a discussion format" (Interview 3). The taking of turns to post a response was not regarded as groupwork, in part, because they lacked mastery of the content in the earlier stages of the research.

Interestingly, although it was a group task, technology appeared to be a hindering factor instead of the flexibility that it purported to afford. Mike shared that the exercise was not "really useful because [they] … ended up not discussing much at all" (Interview 2). He later admitted that it was probably because they "screw[ed] it up a bit. I think it would have been better if we actually had a proper discussion. We didn't communicate" (Interview 2), underscoring the necessity of communicating face-to-face or via WhatsApp prior to the task. Upon hindsight, Enzhan reasoned that working as a group on the essays was a problem when they went about it in a "free flow" manner (Interview 2). Their method of someone first writing a couple of points and the rest filling in the blanks was problematic. Instead, they should have adopted a *divide-and-conquer* strategy like Jerome's group where an outline was done as a group and each section parcelled out later. It appeared that students assumed that they would then make sense of what had been discussed on GoogleDocs and the task could be completed with little discussion.

The problems of groupwork were not limited to just students' incompetent use of GoogleDocs but one in which they appeared to misunderstand the roles which they were supposed to undertake as fellow collaborators. For instance, in another group, one of the members completed the task "in one night" (Janson, Interview 2), surprising his fellow collaborators. What was then left for the rest was to play editors. Even as students visited the work done by the other groups, they realised that when a piece of work got parcelled out and, the essay tended to be incoherent (Janson, Interview 2).

Students also felt that there was not much of groupwork in the sense that they associated "conversation" and instant responses to the construct of groupwork.

Extract 11. Interview 3

> **LeeJie**: I feel **there wasn't much difference doing by ourselves or … doing in a group**. Doing in a group, usually there isn't a lot of conversation going on like Hugh said; it takes a while before people reply to do something. **So, I feel like I was just doing a normal assignment**.

However, they did appreciate the online element where they could "get … inspirations on how an introduction should look like", besides, it was "helpful … [when] there's … something to reference to" (Leejay, Interview 3). In fact, for Pran, though "it was more work", he realised that "it was beneficial", especially when they took on the role as peer-reviewers and were 'forced' to adopt "a criteria of looking at other people's way of writing" (Interview 3). Hugh, who had commented early in the research that he did not quite enjoy groupwork, but realised by the end of the research that doing his assignment "in a group" was valuable because of the differing and rich perspectives which aided his learning. Moreover, access to other students' work allowed him to make a comparison and garner a sense of his standard in comparison. Nonetheless, he still retained his "mixed feelings over whether it [was] better in a group or individual" because he tended to "get distracted" easily (Interview 3). Hugh observed that regardless of whether lessons included online elements, students were already busy "texting" each other, and hence, there was already an abundance of online discussion (Interview 3). Subsequently, there was a need for "more practice" with oral speaking because that would help to address the requirements of the two internal assessments of LangLit (ibid).

The findings presented in this theme displayed a disjuncture between students' touted benefits of engaging in groupwork. Whilst on the one hand, they agreed that there were benefits to working in groups, these were limited to non-examinable tasks. By Interview 3, most of the students felt that working on essays in GoogleDocs was useful but it was a task that they preferred to work on individually. Their idea of groupwork was more of a resource depository and they preferred individualised feedback that would prepare them for the examinations.

*5.7.3 Irony of Students' Verbal Rhetoric*

This section explores the irony of what students verbalised as the potential positive gains from blended learning and their actions that reflected otherwise. For example, students were conflicted where, on the one hand, they regarded the "stuff online" as "good and fun" and "a lot more refreshing" and, on the other hand, there was a lack of corresponding active participation in online tasks. For example, Sally shared that their previous learning experiences were merely completing "worksheets and answer[ing] very generic questions … [usually] by [them]selves … on paper … [and writing] essays" (Interview 2). That was "not a very good way to learn" and now having part of their tasks online meant that they could "learn a lot from how the other person analysed things" and was "a more natural way to learn" (Sally, Interview 2). However, these were the same students who admitted that they were often "a bit late" in going online and hence, could be "the last one" which meant having "nothing left to say" (Sally, Interview 2). Ironically, there were also students who claimed that "GoogleDocs [was] like everybody contributed, in their own free time" but the discussion was somewhat diluted because they were "not really discussing at the same time" (Nalany, Interview 3). Furthermore, they were "not very organised" and group members were merely "contributing … their … part in their own free time, not really discussing much" and so the essay lacked coherence. Additionally, there were others who logged in to find that "almost half the essay was done … [at] one a.m." (Pran, Interview 2) because they were too slow in coming online, especially when the deadline was the next morning.

Moreover, students like Kelly felt that blended learning could be further streamlined to make learning "more efficient" (Interview 3). For example, GoogleDocs (i.e. the examinable Paper 1 and Paper 2 essays) were important but online tasks that focused on film clips and research on rhetorical devices, wikis and blog posts were something that could be "read up …. by themselves instead of doing an actual blog post" (ibid). Though Kelly was aware of the rationale behind the exploration of group tasks online, when faced with the IB workload, she focused on exercises that played an explicit role in her examinations.

This was not surprising, particularly within the educational context of Singapore. The stress on high-stakes examination was so ingrained that students functioned almost on 'autopilot mode' whenever there was a gradable task. For example, whilst students agreed that technology could be a useful tool and enjoyed blended learning, the textbook was still regarded as critical: "I think I can say that for almost all the O-level kids, they are more fluent in using the textbook method" (Jack, Interview 2). Nonetheless, this was not specific to just students from the GCE 'O' levels system. Aron, an IP student, observed that "in general, IB is also graded [and] language-based … even … the IAs and for … the science subjects. [Thus,] Langlit is very important in constructing your thoughts and all that kind of stuff" (Interview 2). Aron's comment highlighted not only his awareness of the assessment structure but also his realisation that regardless of whether the subjects are HL or SL, each subject merited the same amount of focus because they were all examinable. This focus on needing to prepare for the examination was echoed by Janson who observed that though it was beneficial to work on the GoogleDocs as a group, groupwork did not necessarily "reflect that … [he was] actually better at it, because maybe the better ones [were] written by other people" (Janson, Interview 3). Consequently, individual work might be better because it provided "better insights" of one's "capability" which would allow one to "improve faster" (Janson, Interview 3). Kelly too preferred individual work because she could work on it independently and receive individual feedback which was "more relevant to exams" (Interview 3). Given the limited time that they had to "learn everything", it was only in "written assignments" that they would be able to conquer the final examination" (Kelly, Interview 3). Navin too found "online work … okay" and "over … time … [he] got used to it and started to learn by [him]self instead of just depending on the teacher" (Interview 3). However, he still preferred the "lecture style" because it helped him "to be more exam-oriented" (Interview 3).

Similarly, when students were asked about their learning gains from a piece of work, they often measured the effectiveness to how the work could contribute to their eventual performance in the examination. The exercise on creating the blog post was important because students learnt what to do during the examination (Leejay, Interview 3). For Jerome, though he agreed that it was an "efficient and interesting"

way to learn more about blogs by constructing them online, he did not regard it as quite as effective:

> … **because a lot of us have different ideas of what we should put in the blog**. Some made it very conversational, others made it more like Wikipedia article. And because of all these differences, **it's quite difficult to get the information that you need when you revise**. So even when you look over all these blogs, **at least to me it doesn't really help as much**. (Interview 3)

It did appear that the learning objective of exposing students to different blog styles as a means of widening their current repertoire of blog styles was lost under the need to have some uniformity for revision in preparation for the examinations. Nonetheless, the focus on the examinations remained.

Extract 12. Interview 3

**Navin:** … sometimes you might have a thought or an idea of how the blog should be, because you researched and all. You formed it in that manner and because you are commenting on your own blog so you kind of know what you have done, in what way you are trying to put it in things like that. But then, **it's a blog of another person, you might not interpret it the right way or how the blogger has done it.**

**Interviewer:** When **you are thinking of the right way or the correct way,** you are actually really talking about exams, right?

**Navin:** Yes.

Kelly even felt that instead of spending time in working on the blog post, they could instead read lecture notes on blogs, thus, making the process more time "efficient" than doing an actual blog post" (Interview 3).

Generally, students regarded tasks given that geared them toward the examination as beneficial.

Extract 13. Interview 3

**Jerome:** I think **the online thing with the Paper 2 was quite beneficial**. In addition to what Sally said, also in the sense that **because everyone makes a lot of different mistakes, all which are potential mistakes we could make in exam, so seeing these mistakes in actual essays and then knowing how to avoid them or correct them, I feel that's quite beneficial** because if each of us only wrote a few essays, or maybe even just one essay, we might not have made all these mistakes, so we won't know how to avoid them.

Regina agreed and added that it was only when she got “to see other people's essays, they might have thought of arguments” that she had not considered and that was helpful for examination preparation (Interview 3). Nonetheless, this was rather ironic in that whilst students verbalised the positive gains from the “hands on” experience, what was highlighted as most beneficial in Interview 3, were the same pen-and-paper tasks that was now being put online.

It was interesting that students, on the one hand, agreed that there were benefits to blended learning and were seemingly unanimous in their praise of that learning approach. On the other hand, when confronted with gradable tasks, their subsequent actions seemed to indicate otherwise. In sum, the findings presented here highlight how students’ perception of learning was determined by the examination system and that all the learning was geared toward performing for the high-stakes examinations.

### *5.8 Theme 7: User-friendly Platforms*

Theme 7 discusses the user-friendliness of the two platforms used in this study. In discussing the user-friendliness of technological tools used in this study, this section examines the students’ feedback on LMS and GoogleDocs and how they perceived that aided or hindered their learning.

#### *5.8.1 Functions of the Platforms*

As mentioned in the previous chapter, online tasks were placed mainly on the school’s LMS and GoogleDocs. All students indicated their preference for GoogleDocs and upon closer examination revealed that the accessibility of GoogleDocs, despite its single function of creating and editing a document, eclipsed the potentiality of other technological tools (e.g. wiki, blog, forum) in LMS.

Even from the first interview, students commented at length on the cumbersome nature of LMS. One of the most frequently-mentioned irritations cited by the students was the login process where for security purposes had to continually key in their user ID and password. As Sally concluded, “LMS [was] just annoying to go

on" (Interview 3). Enzhan described the "LMS as a system [that was] still kind of … backwards" (Interview 2). Because of the constant need for security, the LMS periodical logging out feature meant that students had to work on a separate document or risk losing their work. In comparison, GoogleDocs's *autosave* function proved to be more user-friendly because students tended to "work at [their] own time" and the *autosave* function meant that students would not lose their work even after a few hours (ibid). Subsequently students regarded the usability of this function as instrumental to blended learning.

Besides the *autosave* function, students also pointed out that both *live editing* and *chat* functions were useful for groupwork. For instance, the *live* update feature of GoogleDocs allowed students to 'see' each other for faster communication unlike LMS which was one that appeared to be posting by yourself (Ezekiel, Interview 2). To circumvent this issue, students worked on GoogleDocs before posting the final product on LMS. The chat function reduced waiting time and students preferred being able "to communicate on the spot" (Mike, Interview 2). Besides, both simultaneous editing by group members and "easier access" (Georgia, Interview 2) were "much better than LMS" (Mike, Interview 2). Another issue that students cited as problematic with LMS was that the cumbersome slow platform with its "many different buttons … to click" just to get to "the page you want[ed]" (Noel, Interview 2), which students concluded as "really not [that] great" (Sally, Interview 2).

### *5.8.2 LMS Features Used in Learning*

The LMS was previously, especially for the Year 4 IP male students, used predominantly as a "content depository" (Hugh, Interview 1) – a place to download soft copies and stuff from teachers" (Janson, Interview 1). The students found that in their first year of IB, there were a lot more notes and one of the problems was that LMS did not allow them to organise notes which could then become "very messy" (Kelly, Interview 1). Most of the students used GoogleDocs heavily because it was a "more efficient [platform] … [where they] could categorize the essays, and everything" (Georgia, Interview 3). To students inundated with notes and groupwork done on GoogleDocs, organisation of the content was critical. In addition, for students such as

Sally who had “a problem of losing things all the time,” having notes “on the internet” was “more convenient” and “easier” for revision (Interview 3). Moreover, GoogleDocs’s “ability to share with anyone … super quickly” and “if a teacher used it, it [would] just be a lot more convenient … because [they] used it everyday” (Interview 3).

As reported earlier, students found the online forum and wiki on LMS equally cumbersome. The online forum which did not allow for instant chat was regarded as “troublesome … because you [had]to write a post,” wait before replying, all of which, felt “like the old version of chat” (Nathan, Interview 2) in the “olden days” (Georgia, Interview 2). Similarly, in the Wiki task, because the LMS did not support multiple users-login, students were ‘forced’ to seek alternative recourse by discussing and constructing it on GoogleDocs before transferring it to LMS or for others, completing their wiki on external sites. However, this defeated the purpose of placing a task on the LMS platform. Additionally, with the singular access into the Wiki which impeded the completion of the group task, students clearly found using the LMS challenging.

*5.8.3 Platforms that Aids or Hinders Learning*

Students also highlighted larger issues such as fragmentation and non-participation associated with the cumbersome nature of the LMS. For instance, the impossibility of checking to see if anyone was online meant that students would simply “just do their own parts only” especially when they logged in “in at different time[s] … [and] so it became a bit fragmented” (Leejay, Interview 2). Mike observed that their group could, at times, be “very disjointed” because of their different login times which ended up in little collaborative work. In fact, it was more of a note-taking instead of “having a coherent or cohesive discussion” (Interview 3). The “wait for the person to post, and then [needing] … to refresh the page” could result in losing your train of thoughts” because opinions could not be voiced till someone responded (Georgia, Interview 3). It was clearly not “a discussion format” (Tim, Interview 3) and rather unnatural (Sally, Interview 2) because of “the need to have a huge chunk of information before you send it out to everyone to read” (Interview 3). Another challenge was that they might not have agreed on “the direction” which the “group

[wanted] to go in" and that was very difficult "to do in a forum … because it [was] not instantaneous [and] people [were] not refreshing their pages" (Sally, Interview3). This unnatural state was because LMS "work[ed] a lot slower than actually talking" (Nathan, Interview 3). The wait for someone to reply was "a lot slower than actually having a conversation about the topic" (Nathan, Interview 3). Furthermore, if none of the members had "any real objections" and everyone simply agreed, then they would not "get anywhere" (Jerome, Interview 3). What annoyed students were that LMS could not notify them when there was a reply and they found it a hassle to remember to check constantly (Hugh, Interview 3). Consequently, there were groups where participation was less than robust, placing "the burden" of contribution on the participating students (Mike, Interview 1). The reasons behind the lack of participation was not a result of apathy but that there were other 'pressing' matters such as critical assessments and since it was rather tiresome to login to LMS, they would then login only when the deadline was looming.

Given that this was the so-called digital generation, students were clearly more comfortable with the use of a computer as a technological tool. After all, "writing essays in a computer [were] definitely much faster than writing on paper itself" (Jack, Interview 2). Their preference for GoogleDocs was not only because of its "user friendly" and "stable" platform (Leejay, Interview 3) but because of its similarities to MS Word which they used heavily for their assignments. GoogleDocs allowed them to edit and this was a "more correct way of answering the question" (Georgia, Interview 3). What Georgia meant was that the *editing* and *suggesting* function allowed them to "see … [the] mistakes … [they] made … and edit on the spot" (Interview 3). In this way, this would ensure that they did not "make them the next time" and more significantly, they did not need to cancel and re-write a "new paragraph" (ibid), thus, saving them precious time. In fact, content should be uploaded onto GoogleDocs for ease of accessibility and because students "always go on GoogleDocs", there was "a higher tendency to read it" (ibid). GoogleDocs provided a "more fluid" discussion "because it [was] a bit more instantaneous" and "easier to do the work" (Jerome, Interview 3), making "a group essay beneficial" (Jack, Interview 3). Thus, GoogleDocs allowed them to not only "contribute", but also "edit ideas" (Jack, Interview 1). It was, in short,

"convenient" (Jack, Interview 1). In comparison, students felt that "there [was hardly] any benefits [using] … the LMS" (Jerome, Interview 3).

Additionally, though students agreed that it was important to use online platforms, engaging in handwritten work was similarly regarded as necessary. Getting pen-and-paper exercises were good practice for better penmanship which was critical for the examinations. Whilst the *spell-check* function of GoogleDocs was useful, students were aware that they "shouldn't be over-reliant" (Kelly, Interview 3) because this function would not be available for them during the examinations. Yet, there were others like Mike who found online essays useful because he had structured them "in the same way" as he would do "in an exam setting" (Interview 3). Thus, viewing these essays as "additional practice for [the] exam" and the "criticism" that he received from his classmates were beneficial than just receiving "criticism from the teacher only" (ibid). Consequently, the peer feedback helped him "to improve" on his writing (ibid). Others who have leveraged on peer-review found that their work "sound[ed] a lot better" and felt that would "contribute to how" they would write for their examinations (Daryl, Interview 3).

In summary, the findings presented in this theme underscore the importance of the accessibility of a technological platform instead of the features that a platform could offer.

### *5.9 Summary of Findings*

To conclude, the findings from the two FGIs, as presented in this chapter, provided an overview of students' perceptions on the use of blended learning in their LangLit curriculum. A summary of the pedagogical principles, concept and practices are as summarised as shown in Figure 11. As described in this chapter, the main teaching strategies adopted range from lectures, class and group discussions. Whilst both online and class group activities may vary, they draw on the same learning approaches as delineated by IB and are thus, mapped accordingly to each of the activities. Whilst there are overlaps, the student-centred pedagogical approaches lend themselves more frequently to a particular teaching and/or learning approach.

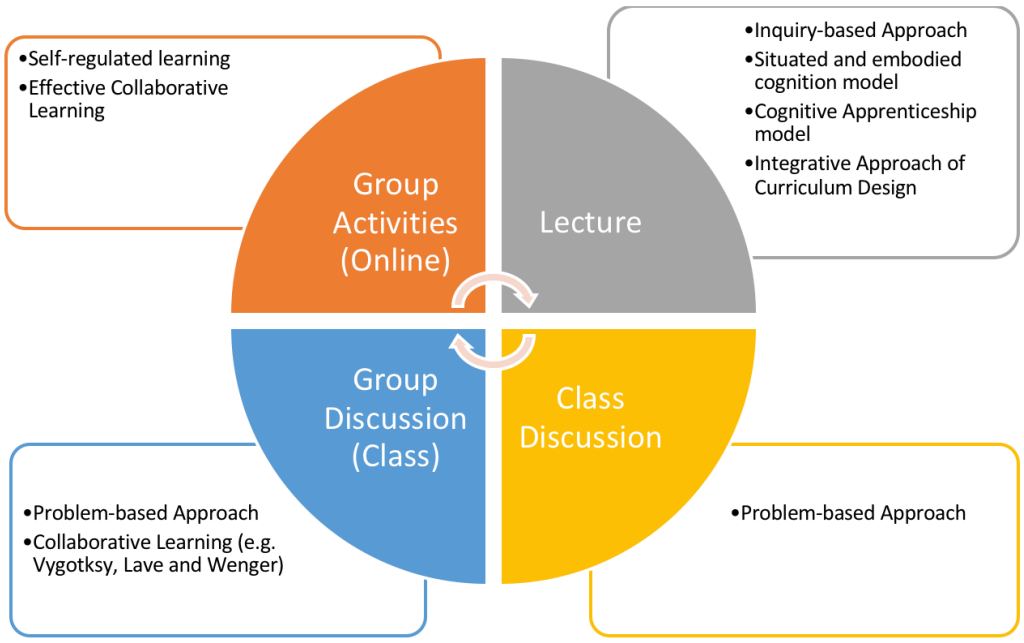



*Figure 11.* Summary of pedagogical principles, concept and practices used.

Finally, a discussion of these results will be presented in Chapter 6.

## Chapter 6: Discussion and Implications

### *6.1 Introduction*

This current study is not merely concerned with students' experiences and their perception on the effectiveness of blended learning but is also interested in the important aspects that need to be considered for the effective design and implementation of blended learning within the Singapore school context. This chapter revisits each of the research questions to draw relevant implications. Overall, the findings presented in the previous two chapters, question assumptions on the use of blended learning in a Singaporean LangLit classroom.

### *6.2 Blended Learning in IBDP English A Classrooms*

The first research question asked about ways in which a blended learning approach can be implemented in the IBDP English A classroom. To address this question, it is important to re-visit Garrison and Kanuka's (2004) definition of what constitutes blended learning. They claim that the nexus of blended learning lies in "the quality and quantity of the interaction and the sense of engagement in a community of inquiry and learning, achieved through the effective integration of Internet communication technology" (Garrison & Kanuka, 2004, p. 97). By this definition, blended learning is not only about employing an ICT infrastructure but instead is about the fostering of a community of inquirers, situated within a computer-supported collaborative learning environment. The deliberation between a balance of face-to-face and online interaction has gained much traction in CSCL research (Beers et al., 2005; Duque et al., 2015; Gress et al., 2010; Kumar et al., 2010; Lowyck & Po, 2001; Schellens & Valcke, 2006; Sinha et al., 2015; So & Bonk, 2010; Stahl, 2017). Thus, this balance of face-to-face and online interaction, albeit blended learning, the findings reported in the previous chapter observe that blended learning can be effectively implemented in the English A classroom, pending several considerations that will be discussed in this chapter.

To address RQ1, this section will present the design and methodological principles used in the implementation of blended learning. It provides an overview of the design principles necessary for such an implementation. The discussion on the

necessary design principles for a blended learning approach will be done in the following two ways. The first will examine the design of the LangLit curriculum which draws on tenets of DBR. Second, it will explore the design of an iteration that draws on Garrison's (2006) collaborative design principles.

***DBR Principles.*** The research study draws on the "iterative logic" (Cobb et al., 2003, p. 9) in the design and implementation of a blended learning approach. The cyclical pattern of didactic lectures, collaborative class and online groupwork and teacher-led class discussion (see Figure 11) reported in this current study are important iterations that help to refine the overall design. These multiple iterations provided opportunities to amend the original design for a more effective implementation. In short, each iteration will not only inform the design but also contribute to the refinement of the curriculum.

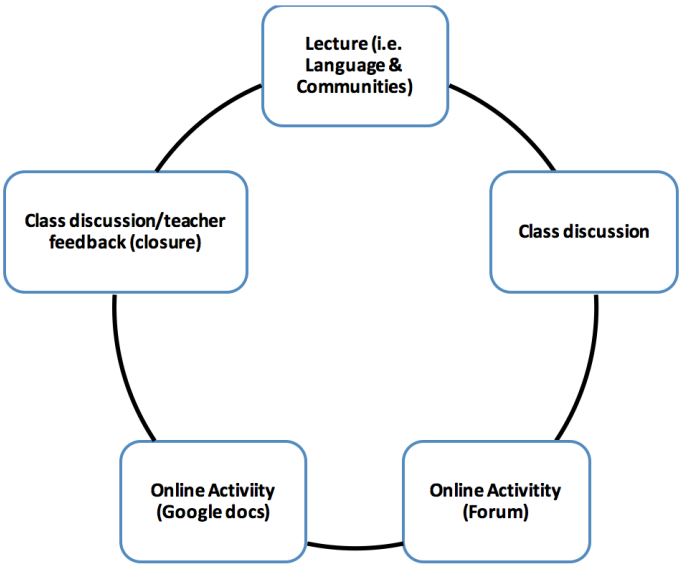



*Figure 12.* Design of Pedagogical Activities for a Unit.

The revision of an iteration was based not only on the field notes and observations of students' online behaviour but also on the interactions between students and the teacher-researcher during FGIs. Students highlighted that whilst there were merits to groupwork on most of the online tasks, they were not quite as beneficial when working on essay questions placed on GoogleDocs. Their suggestion that it should be paired work instead was taken into consideration for the next few iterations which students found beneficial. More significantly, students' feedback

showed not only their participation but also ownership over their learning. In short, they regarded the activity as a resource for learning. This finding goes counter to earlier observations of blended learning in Singapore's educational institutes where e-learning was a mere "porting of the classroom to the Internet to reproduce the functionality and 'look and feel' of the existing classroom materials in a new operating platform" and/or that there was a "lack of two-way interaction between students" and teachers (Tham & Tham, 2011, p. 138). Indeed, the iterations reported in this study have "the potential to contribute to or generate theory or conjectures" (Amiel & Reeves, 2008, p. 36).

***Online collaborative principles.*** As Garrison (2006) observes, the *design, facilitation and direct instruction* are key areas which leverages on the community of inquiry model. His recommendation of creating "a climate of trust and belonging" (p. 26) echoes the findings reported in this study. Students were initially uncomfortable with (1) working with each other and (2) with the online tasks. The initial awkwardness they experienced in both the new class and in their respective groups was evident when they gingerly tiptoed around each other in the first iteration, unsure of the type of responses and/or feedback that they needed to give. Added to this discomfort was the 'new' mode of learning. Students had been accustomed to a top-down traditional classroom pedagogical teaching approach and this was their first experience with blended learning. Accordingly, the initial iterations in the research helped them to, first, mediate the initial awkwardness as classmates and group members, and second, negate their discomfort of blended learning through repetitions of the activities over a period of 21 weeks. Thus, the end of the first iteration where the teacher conducted a whole class discussion and provided closure for the unit, allowed these students to reflect on their past experiences. This also echoes the *cognitive presence* that Garrison (2006) advises as necessary to "establish critical reflection and discourse that will support systematic inquiry" (p. 28).

***Implications.*** Clearly, it is necessary that detailed planning, allowing students to explore and mediate their 'new' learning environment, must first be done. By the end of the study, students agreed that blended learning was a pedagogical teaching

approach that should be adopted for the next cohort of students and that collaborative learning was useful. Additionally, they acknowledged that the use of technological tools and how they employed them were also indicative of themselves as independent learners. However, most of them prefaced that though online interactions were accessible, they preferred face-to-face interactions, underlining the latter as instrumental to collaborative learning. Nonetheless, students found collaborative group tasks (i.e. Paper 1 and 2 essays on GoogleDocs) valuable. Though they preferred GoogleDocs, they acknowledged that blogs and wikis were technological tools that provided them with experiential learning and these tasks helped to scaffold their understanding of each respective text type. Accordingly, the iterative cycles of the research design not only refined the research study, but also afforded students with a repetitive pattern in which they could familiarise themselves with a new learning pedagogy.

In summary, key areas, as discussed in this section, are essential to the planning and implementation of blended learning in a Singaporean LangLit classroom. Moreover, besides adopting the principles that govern a DBR (i.e. iterations, interactions between students and teachers, etc.), the educational context also plays a key role. All of which will be discussed in greater detail in RQ2 and RQ3.

*6.3 Students' Experiences and Perception on the Effectiveness of Blended Learning*

The second research question examines the students' experiences of the blended learning approach and their perception on the effectiveness of this approach for their learning. Overall, students found blended learning approach useful and was an effective approach to their LangLit learning. They reported that blended learning was an "interesting" way of learning and something that they felt was appropriate and addressed their needs as the digital generation. In short, the findings provided more in-depth understanding on using blended learning and students' experiences, thus, underscoring the complexity of using such an approach in a Singaporean LangLit classroom. In general, results from this study are positive but a closer examination reveals inherent contradictions in the following three areas: (1) digital natives as students, (2) curriculum, and (3) the educational systemic construction in Singapore.

*6.3.1 Contradiction: Digital Natives in the Classroom*

Whilst the findings, in general, echoes previous studies on digital natives possessing "digital language" (Prensky, 2006, p. 8) and requiring constant connectivity (McNeely, 2005; Tapscott, 2009; Windham, 2005), students are, firstly, not necessarily digital natives in their formal learning environment, and secondly, they may not regard technological tools as an essential inclusion in the classroom.

***Digital Natives.*** Findings from this study show that students are clearly digital natives in that they were equipped with relevant technological tools. From the survey results, students reported owning a mobile phone and about 93% of the students owned a laptop. In addition, at least 90% of the students used text messaging as a daily tool. What is significant from the survey results are that these digital natives were clearly accustomed to connectivity. Accordingly, students reflected that the use of the blended learning approach in LangLit meant that learning in the classroom was finally attuned to their digital natives' needs. Most of them expressed that the subject was interesting because it was different from traditional top-down teaching and mainly, because it included the use of technology. In fact, the uptake of technological tools by the students are typical of the generation, requiring little guidance in terms of technical issues. As Ng (2012) reports, the findings of these pre-university students exhibited the same behaviour as the undergraduates in his study where they were able to draw on digital tools to "create meaningful products with the minimal fuss" (p. 1077). In fact, by the end of the study, all students either owned a laptop or a tablet. Students argued that these were necessary learning tools for the IBDP, thus, aligning with findings reported by Tapscott (1998; 2009) who found that the digital generation prefers a learning environment that is mixed with work and play. This is not unlike what McWilliam (2009) advocates as key teaching and learning approaches for the digital generation. Indeed, students tended to expect a technology-infused environment (Barnes, Marateo, & Ferris, 2007; Oblinger & Oblinger, 2005) which Margaryan, Littlejohn, and Vojt (2011) concur and add that students' expectations on the use of technology need to correspond with the objectives of given tasks.

***Digital Natives in Formal Learning.*** While students reported that they enjoyed the inclusion of technology, the findings did not observe any evidence of students adopting different learning styles or displaying any sophisticated understanding and use of technological tools. Instead, students were highly critical of Web 2.0 technological tools. They felt that an online forum was one that was "unnatural" and "forced" because it did not show 'live' updates and they needed to wait for a response. Furthermore, online forums were no longer platforms which their generation were engaging with in real life. Instead, these were platforms they visited only when they needed self-help (e.g. in fixing computer issues, etc.), and were not something that they visited on a daily or even weekly basis. In short, they felt that the online forum was rather removed from their daily experiences and given what they regarded as cumbersome infrastructure (e.g. lacking in 'live' updates), accounted for the students' lacklustre engagement. Clearly, students had different expectations of what they regarded as user-friendly and authentic platforms. Though students engaged with online activities such as the creation of a blog and wiki, they complained about the awkward nature of the LMS platform on which these were placed. They pointed out that the blog and wiki platforms did not even resemble the ones on the world-wide-web. Instead, some of the groups constructed their blog and wiki elsewhere posted the URL on LMS. It appears that it is not only students' preconceived notions of what a platform (e.g. blogs, wikis) should look like, or what online discussion platforms (e.g. forums) should be used for. But rather it is their unwillingness to adopt unfamiliar platforms that played key roles in the use of a given technological tool in their learning.

One of the issues that students raised was that they encountered the Web 2.0 technological tools outside-of-school and hence, were unable to mediate the transference to formal learning. This becomes more apparent when students attempted to construct a wiki. Students were merely transferring and rephrasing information from the web after a *divide-and-conquer* group strategical approach. It would appear that students were familiarising themselves more with the format of the given text type than leveraging with it as a genuine learning space. This was despite the learning objectives of the task, that was based more on content learning, being made clear to them. Instead, students decided that the learning objective was one in

which they needed to understand how a wiki was constructed because all the information was already on Wikipedia. However, as Kennedy et al. (2008) admit, "it is difficult to expect students to have the expertise to judge how to best use emerging technologies for educational purposes" (p. 119).

***Personalised digital practices.*** Despite the critique of the tools on LMS, the consensus amongst students was that technology afforded a means to circumvent the boredom of traditional classrooms and enjoy "freedom … [and] convenience". In fact, one of the most touted benefits of technological tools for the students in this current study was the organisational and accessibilities of Google Drive. Most of the students cited past experiences and continued beneficial experiences with the use of Google Drive and instead, found new technological experiences like wiki and blog less useful. Students appeared to have developed what Gurung and Rutledge (2014) describe as "personalised digital habits and niches" in their use of technology (p. 97). More importantly, the benefits of GoogleDocs within Google Drive were that the tasks prepared them for the examinations. Hence, students regarded them as more useful than tasks on LMS which scaffolded their knowledge and understanding but were not geared specifically for the examinations. This focus on academic performativity (see section 6.3.3) underlies the contradiction of these digital natives as students. Students' experiences on online forums reveal a complex picture of how students' obsession with academic results meant that they preferred didactic learning styles geared toward *learning to the test*. Yet, the ironic contradiction was that students acknowledged that there were learning gains in using the blended learning approach, especially since the lessons were more interesting and enjoyable.

***Technology in the classrooms.*** Though these students were the so-called digital natives, they did not regard technological tools as critical additions to the classrooms. For instance, students were concerned with online *written* group discussion. They felt that online group discussion minimised opportunities in verbal articulation of their ideas which traditional classroom groups afforded; thereby, this could be detrimental to their oral examinations. Students were also concerned that with the keyboard typing and the function of the *auto-correct*, *cut and paste,* etc. in

MS Word and GoogleDocs could also minimise their pen-and-paper practice sessions which they regarded as critical for the examinations. They explained that they think very differently when typing as compared to writing. Engaging in online tasks could be problematic because it would mean that they had less practice with handwritten work, especially since their key examinations were written. As such, some of the students regarded online tasks as fun activities that enhanced their learning journeys but were not as critical for grade attainment. In fact, some students' preference for traditional classroom settings aligns with what academics found that digital natives did not necessarily need ICT in their formal learning (see Ben-David Kolikant, 2012; Margaryan, Littlejohn, & Vojt, 2011; Ng, 2012; Wang et al., 2014).

***Discipline.*** Interestingly, students displayed the same awareness of both the benefits and potential challenges in using technology that Thompson (2015) describes in her study. For instance, some felt that technology was distracting to them and that even though they were online legitimately, in terms of completing their given tasks, they admitted being side-lined with chat pop-ups and surfing on the internet. However, this was counter-argued by other students who felt that even if the tasks were not online, they would still be distracted, if they allowed it, by text messaging and surfing on the internet. What this distilled down to was the student's ability to manage the distraction. For some, they reported that they engaged in multitasking where they might possibly play music to accompany their learning but that they would turn off all distractions when it came to demanding tasks. These findings too align with what Thompson (2015) found in her study where digital natives revealed that "distractions of technology … [is] something to be consciously managed" (p. 481).

In general, students found blended learning to be a welcome addition, in part, because it acknowledges them as the so-called digital generation and accordingly, addresses their learning needs. But they were also highly critical of the Web 2.0 technological tools and did not appear to be as proficient as expected. Yet, their response toward the use of technology in their formal learning was conflicting, wavering between technology as interesting and yet querying its place in the high-stakes examinations.

*6.3.2 Contradiction: Internationalised Education and Independent Learner*

One of the contradictions of the LangLit curriculum is IB's claim that the programme advocates international awareness. International awareness allows students to transgress geographical boundaries and display intercultural understanding.

***Benefits of LangLit.*** In a general sense, the findings do echo the viability of the subject where students reported that they enjoyed LangLit as a discipline not only because of its applicability to the real world but that blended learning, in terms of online activities, afforded them with hands-on opportunities, thus, contributing to a richer understanding of the subject. For example, students reflected that they found the *language* component as more relatable to real life. After all, the analysis of texts, even if they were non-local, were texts that they could relate to in their daily life (e.g. newspapers, advertisements, speeches, etc.). This, thus, fulfils one of the aims of the subject which encourages students to "see and understand the world in which [they] live" (ibo, 2013b). Unsurprisingly, the LangLit curriculum was generally well received by the students. Almost 85% of the cohort take LangLit because they felt that the subject had real life relevancy. Furthermore, the curriculum advocates internationalisation and independent learners. However, a closer examination of the findings reveals contradictory observations. Firstly, the IB argues that the IBDP is an internationalised transboundary programme, yet the LangLit syllabus is rather Eurocentric. Secondly, though the programme touts to train students to be independent learners, students struggled considerably with the Eurocentric texts in the literature component, thus, requiring constant handholding and dependency on didactic teaching.

***Eurocentric.*** Yet, the issue does not lie with the use of Eurocentric texts such as *The Great Gatsby* by American author, F. Scott Fitzgerald, *The Outsider* by French author, Albert Camus, or even *Macbeth* by William Shakespeare, in their literature component. Given the sociocultural make-up of Singapore, students were not exactly alienated from Western culture. In fact, most of them, having learnt English as the first language from the time of formal schooling, have been inundated with Western

culture. As Hayden and Wong (1997) observe, international-mindedness may not necessarily be an experience of school or curriculum but a student's personal experiences. As Haywood (2007) cautions, international-mindedness is "multifaceted" (p. 81) and perforated with complexities. Additionally, this also draws attention to the complications that riddle the international-mindedness of the IBDP and as Starr (2009) cautions, students may be caught between "their own cultural references and traditions and those of the Euro-American education they seek" (p. 120). In fact, most of these students struggled with the reading of *The Great Gatsby* at the beginning of the year. They were unable to relate to both the language and context set in 1920s America and required extensive handholding (e.g. line-by-line annotation of the initial chapters). Whilst one may argue that the problem could be one where the literary text is taken from the Western canon (Bent, 2009; Fox, 1985; Loh, 2012; Poonoosamy, 2010), the issue was not wholly that it was an Eurocentric text and students' lack of cultural understanding of the American context, but rather that the writing style of the novel was one from the previous century.

Thus, though students did experience initial difficulty in terms of deconstructing a literary text, the problem was not one where there was a disconnection with Western culture or even the English language but one of content area. In fact, once the 'mystics' and chore in reading each text was unveiled for the students, they tended to "like" and "enjoy" them, thus, contradicting in some ways, the expectations of being an independent learner.

***International-Mindedness***. What was also problematic was students' ability to transfer the literary skills learnt in the deconstruction of one text to another. Often the line-by-line annotation had to be repeated in each of the new texts. This resulted in a heavier reliance on authorial sources such as didactic teaching lectures and notes to guide them through the texts, thus, begetting the question on the possibility of students becoming independent learners in the literature component. Nonetheless, as Loh (2012) advises, students need to be "equipped with intercultural capital and learn how to make critical connections between the local and the global from their situatedness within the nation and the world" (Loh, 2012, p. 232). What this distils

down to is the vital role a teacher plays in ensuring that both international-mindedness and independent learning are carefully curated for the students. After all, international-mindedness cannot be taught by following a text list or listing of topics. Furthermore, the lack of clarity in guidelines provided by IB (see Cause, 2011; Hayden & Wong, 1997; Haywood, 2007; Starr, 2009) and the notion of independent learning would also need considerable time. Yet, the design of the IBDP curriculum is complex and has a short, almost two years, stipulated timeline. Consequently, this has wider implications in terms of purposeful teaching and execution within the classroom whilst negotiating with the cumbersome examination machinery.

Thus, the contradiction that arises from the curriculum can be seen in two ways. Firstly, the IBDP Eurocentric curriculum and lack of clarity in their guidelines to the definition of international-mindedness in the curriculum may result in a rather superficial treatment of international mindedness. Secondly, whilst one of the curriculum objectives was to encourage independent learning, this could prove to be challenging given an academic-performativity educational setting.

### *6.3.3 Contradiction: Centralised Decentralisation of the Singapore Education*

The academic performative nature of Singapore's education system not only poses tremendous challenges but also appears to undermine the underpinnings of the imported curriculum which stresses on critical thinking and independent learning. To encourage the inclusion of these two areas would also mean a moving away from traditional *teaching to the test*. The students within Singapore's education system imbue, to a certain extent, some of the characteristics of Asian learners (Cheng, 2000; Kember & Gow, 1991; Kennedy & Fox, 2013; Tavakol & Dennick, 2010). For example, students tended to be passive in their learning in that they expected more didactic teaching or examination strategies. In sum, their expectation of formal learning needs to be geared towards academic performativity.

***Paradox of the Singapore education system.*** IBDP argues that students need to engage in global citizenship as denizens of the twenty-first century (Doherty & Shield, 2012; ibo, 2013b; Lai et al., 2014; Loh, 2012) and one way of doing so, is to

imbue critical thinking and encourage students to be independent learners. On the surface, the Singapore educational context appears to advocate similar concepts as seen through the *thinking schools* initiative (1997) which underlines a "passion for learning among our young" (Goh, 1997). Nevertheless, the then prime minister, Mr Goh Chok Tong admits that this passion is not very robust in Singapore students because of their focus on academic performativity. A further complication is the deregulation of education policies where schools are granted more autonomy in the selection of programmes (Tan, 2009; Tan & Ng, 2007), but the state also introduced policies geared through academic performativity as a countermeasure over the varied curricula adopted by schools. Consequently, this leads to what Tan (2009) describes as "a paradox within deregulation and regulation of education in Singapore" (p. 118). As the findings continually suggest, this paradox is manifested in the continual obsession over academic performativity in schools. As such, though students reported that they enjoyed and regarded online activities as playing a significant role in their learning, contradictions occurred when online tasks clashed with assignments tied to high-stakes examinations. At that point of conflict, online assignments (i.e. often group tasks) became expendable. Furthermore, in the run-up to the examinations, students indicated a preference for teacher feedback on individual work because those were tailored to their specific needs for the examinations and they were not keen on revisiting peer-reviewed groupwork.

Though the education system allows for a decentralisation of the education system and schools are granted autonomy over the programmes that they offer, issues of academic performativity are further complicated by students situated within the Asian context. The IBDP stresses critical thinking skills and independent learning. Whilst past research has observed that Asian students tend to be more reticent and passive and prefer a transmission model of learning (Chan, 1999; Cortazzi & Li, 1996; Flowerdew & Miller, 1995; Jones, 1999; Littlewood, 1999; Wachob, 2000), more recent research (see Thang et al., 2015) on Asian students' regard on the use of technology in classroom echoes their preference for teacher-centred learning because of their "practical conceptions of learning" that is closely linked with academic performativity (Tavakol & Dennick, 2010, p. 374). This is especially true within a Singapore context

where students are “more performance-oriented … than learning-oriented” (Chang & Ho, 1992). As students shared in the interviews, though most enjoyed the online activities, the priority of these tasks did not factor very highly for them especially when they had other internal assessments, graded work or other more important activities. They were focused not so much on the experience of the IBDP or learning to be critical and independent learners, but more on what grades they could score in the examinations. Hence, they continually emphasised that they would only refer to essays that had teacher and not peer feedback.

***Independence through online tasks.*** However, the findings also showed that students did not deny that there were actual benefits and most observed that they experienced ‘forced’ independence through the online tasks. In their interviews, when asked about independent research, students reported that independent research was a result of the teacher’s refusal to provide them with the ‘answers’ and hence, in completing the online tasks, they had to research online. These ‘forced’ online tasks, not only afforded them opportunities in conducting research but more importantly, required them to distil the key learning points. Consequently, in retrospect, they were also appreciative of the differing perspectives they garnered in their respective groups.

Yet, despite their acknowledgement that there were benefits, in the earlier half of the research as shown in Interview 2, students were clearly uncomfortable with the new learning pedagogy and their perceived lack of teacher feedback. They often requested for “more pointers and tips” that could help them in the research or claimed that they did not know what to do when there were no detailed instructions. Some plausible causes could be students’ inability to digest the demands of this relatively new programme and most likely, due to their wariness in making mistakes which resulted in what they termed as “wasting time”. Clearly, a fine line separates independent learning and requiring legitimate feedback. Thus, though students appreciated the benefits of blended learning, some felt that they might not necessarily translate into examination scoring gains.

These findings resonate with what researchers have observed on East Asian learners. For instance, Asian learners tend to be more inhibited as compared to their Western counterparts (Kubota, 1999) and their passivity is a result of their desire of wanting to be right and not wanting to lose face (Biggs, 1996; Clark & Gieve, 2006; Gan, 2009; Jin & Cortazzi, 2006; Jones, 1999; Littlewood, 1999; Liu & Littlewood, 1997; Watkins & Biggs, 2001). Similarly, in the interviews, some students mentioned that writing 'live' on GoogleDocs meant that there was the pressure of someone viewing their mistakes as they were making it. However, were all the students entirely reticent? After a couple of iterations, there were students who proffered solutions to writing essays on groupwork and maintained that instead, pair work would be more effective. To support this recommendation, students argued that there was little coherence when each of them focused on one part of the essay. In fact, they found it challenging to construct a coherent argument even with prior face-to-face discussion. Clearly, students were taking ownership over their learning. In short, this finding weakens considerably the argument that Asian learners tend to more inhibited.

***Examination System.*** Interestingly, though one can counter-argue that the examination system dilutes new pedagogical initiatives that are not geared toward high-stakes testing, there are merits to the examination system. Firstly, these students belong to the so-called digital generation which has often been described as not only seeking instant gratification in their search for knowledge but also lacking in desire to engage in any in-depth reading beyond Instagram or a twitter feed (Paul, 2013). Secondly, as Asian learners who are focused on high-stakes examinations, they tended to be more focused on *learning for the test*. However, the nature of the IBDP's LangLit assessment and the nature of subjects such as Literature meant that students needed to engage in some form of critical and independent learning and thinking. The pen-and-paper examinations at the end of their two-year course expect them to write and present their ideas coherently.

Whilst others might argue that this could be easily addressed through a memorisation of essay questions, this method would not work for the Paper 1 and 2 examinations. Paper 1 is based on unseen texts which students need to apply their

understanding of linguistic features to deconstruct unseen texts and Paper 2's questions are six general questions that are unpredictable. IB's intention was that their choice of these questions could be applied to a whole host of texts that students cover around the world. In other words, the questions are so general that it would not be possible to force-fit a memorised response. It is also critical to consider the localised cultural context which students inhabit. The pervasive academic performativity education system presented formidable obstacles in the use of any pedagogy that appears to deviate from traditional *teaching to the test*. The findings showed that students were strategic in the management of their online tasks. Their priorities were heavily influenced by academic results and by extension, they displayed strong preferences for heavy "guidance from lecturers" (Margaryan et al., 2011, p. 438).

***Implications.*** Cognisant of these examination-oriented students, the design of this study adopted a more heavily scaffolded approach in the initial units. Detailed instructions and closely monitored facilitation were strategies used to guide the students in these initial units, but this eventually diminished in the later units as students became more familiar with blended learning. What this means in terms of implementation is that in the design of a blended learning approach, the design needs to be mindful of the assessment demands and classroom teaching pedagogy must continually revisit and refine accordingly.

In summary, students' experiences of the blended learning approach were heavily influenced by the academic performativity culture of the education system. This contradicts the independent learning aspect of the Western-imported IBDP and dilutes to a certain extent, the students' learning experiences. Nonetheless, the examination system does, to a limited extent, mandate students to engage more closely with their texts and learning.

*6.4 Effective Design and Implementation*

Lastly, the context surrounding a research study plays a key role in the effective implementation of a blended learning approach. For instance, within the context of this study, the IBDP must not be regarded as a mere Western import. Furthermore,

the focus on academic performativity in the Singapore educational context meant that there must be realistic inclusion of tasks as part of examination preparation. In addition, explicit articulation on the objectives of not only the blended learning activities, but the links to the IBDP LangLit programme would be most useful (Lineham, 2013). Once those are addressed, students would then be able to make the necessary links of the subject to the world around them, hence, resulting in students reporting that LangLit is a subject with applicability to real life.

Accordingly, the third research question examines the important aspects that need to be taken into account in the effective design and implementation of a blended learning approach and investigates, in particular, the *cultural*, *pedagogical* and *technological* considerations. To better examine these three considerations, this study adapts the TPACK model and maps the seven themes (see Table 11) onto the *Considerations model* (see Figure 12).

Table 11. Interview Themes

| **Coding Reference No.** | **Themes** |
|---|---|
| 1 | Conundrum of Time and Pressure |
| 2 | (Dis)comfort with the new or with non-teacher feedback |
| 3 | Blended learning in the LangLit Discipline |
| 4 | Students in Blended Learning I: Independent Research or a facet of it… |
| 5 | Students in Blended Learning II: Digital Generation or a facet of it… |
| 6 | Disjuncture between students' views on group work and their actions |
| 7 | User-friendly Platforms |

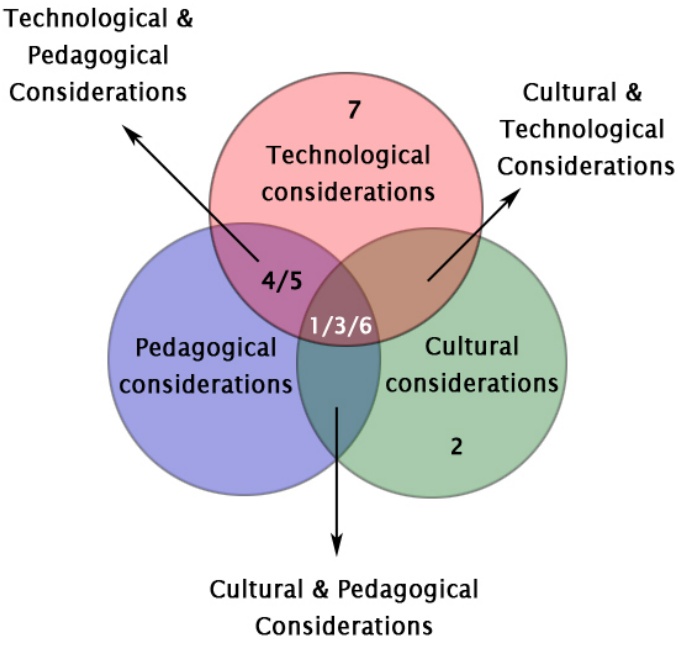



*Figure 13*. *Considerations Model* with Themes.

The model is intended to show that whilst there are themes that fall neatly into a specific consideration, more often than not, these themes overlap. The findings, presented in the previous chapter, show that it is not enough to examine the considerations as separate entities but rather it is more important to investigate these overlaps.

### *6.4.1 Single Considerations: Pedagogical*

Pedagogical considerations are essential in the design and implementation of a blended learning approach in the teaching of the IBDP LangLit curriculum. Students reported that they found that the LangLit to be interesting and relevant to their studies (see section 6.3.2). In the conceptualisation of LangLit, IBDP drew on a variety of pedagogical underpinnings such as inquiry-based learning, problem-based learning, situated and embodied cognition model, self-regulated learning, collaborative learning and integrative approach. What is significant about these student-centred pedagogical approaches is that they share characteristics that help guide the design of blended learning approach in the teaching of LangLit (see Table 12).

Table 12. Adapted from Li's Approaches to Learning: A Literature Review

| Learning Approaches | Key Characteristics |
|---|---|
| Inquiry-based | • Inquiry cycles<br>  ○ probing questions that model and scaffold knowledge construction<br>  ○ Critical, creative thinking<br>  ○ Self-regulated learning skills<br>  ○ Metacognitive ability and communication skills |
| Problem-based | • Authentic problem scenarios<br>• Small groups collaboration<br>• Inquiry strategies and inquiry cycles<br>• Higher-order thinking skills are practised |
| Self-regulated learning | • Self-regulated learning skills<br>  • Self-assessment; self-reflection<br>  • Reciprocal teacher-student conversations<br>  • Peer collaboration<br>  • Teacher feedback<br>• Internalisation of self-regulation strategies |
| Effective collaborative learning | • Collaborative learning can be defined as a learning environment in which students make contributions to solve problems together |
| Situated and embodied cognition model (Teacher-led) | • Relationship between abstract concepts and the context needs to be explained<br>  ○ Scaffolded experience, analysis and reflection<br>• Formative assessment and feedback |
| Cognitive Apprenticeship model (Teacher-led) | • Identify the processes of a task and explicitly demonstrate how the task can be accomplished;<br>• Abstract tasks situated in authentic contexts<br>• Diversification of contexts and articulate common underlying concepts to scaffold transfer |
| Integrative Approach of curriculum design (Teacher-led) | • Interdisciplinary model of curriculum design<br>  ○ Blend of skills in both the language and literature component |

It is obvious that there are overlaps as the listing of the approaches are not meant to be neat compartmentalised pedagogical learnings that addressed a specific part of the curriculum or as Li (2002) explains "mutually exclusive" (p. 11). Rather, they should be "integrated and applied, [thus,] addressing different instructional purposes and constraints" (ibid). What this means in terms of blended learning is that it is not simply enough to address, for example, the learning approach, *effective collaborative learning*, by simply getting students to engage in online group tasks. After all, effective collaborative learning cannot be done through just groupwork. This needs to be developed within the students through inquiry cycles (i.e. *inquiry-based learning approach*) and authentic problem scenarios (i.e. *problem-based learning approach*) might first need to be introduced and facilitated in class. Students do not automatically possess self-regulated learning skills (i.e. *self-regulated learning approach*) and they need to be guided. All of this means that the teacher would first have to engage with *integrative approach of curriculum design* where they must consider the interdisciplinary model of curriculum design, *cognitive apprenticeship model*, where they need to identify the process of a task and situate abstract tasks in authentic

contexts before finally scaffolding the experience, analysing and providing formative assessment and feedback through the *situated and embodied cognition model*.

In short, a thorough understanding of the aims and objectives of the programme together with the syllabus is essential in the planning and implementation of a blended learning approach within an existing education system.

### *6.4.2 Single Considerations: Technological*

One of the main considerations required for effective design and implementation of a blended learning approach would be the use of technological tools. Clearly, from the interview findings, the accessibility and functionality of employing a technological platform is critical. The LMS with its tedious log-ins and unfriendly mobile log-ins were dismissed by the students as cumbersome and archaic. The characteristics of user-friendly platforms can be categorised in the following manner:

1. *Accessibility.* Platform should be accessible on both computers and mobile platforms.
2. *Easy login.* A one-time login that can last for several hours or until they log out themselves.
3. *Auto-save function.* The ability for the document to save automatically because the piece of work may span several sittings.
4. *Chat-friendly*. Having a chat function that allows students to 'see' when their classrooms are online and for them to confer with each other is essential.
5. *Instant update and multiple logins*. Instant update(s) of the document in real time helps to circumvent tedious refreshing of the page and minimises potential repetitions.
6. *Organisation and fewer clicks*. Platforms should be flexible in the organisation of documents. Documents should also be easily found with fewer clicks.

In short, these characteristics support the idea of digital natives being accustomed to "twitch speed" (Prensky, 2001a, p. 3). To students, a user-friendly platform is simply regarded as a support to students' learning and "not viewed as anything special"

(Kennedy & Fox, 2013, p. 75). After all, it is the accessibility and fuss-free login processes that are regarded as useful and most productive to their learning.

### *6.4.3 Single Considerations: Cultural*

Cultural consideration is critical in the design and implementation of a blended learning approach. Within the scope of this study, *cultural consideration* is defined as the examination culture or the academic performativity that pervades the Singapore education context. In the discussion of this consideration, it is necessary to consider students' cultural background in two ways as both East Asian learners and learners in an educational system that has been heavily influenced by the Western culture. In other words, within the context of this study, the students' cultural background as East Asian learners plays an important role in the planning and implementation of a blended learning approach.

Whilst the educational context is in Singapore, findings from this study indicate similar preferences reported by studies on East Asian learners. Schneider and Lee (1990) observe that East Asian learners' academic success is "related to cultural and socioeconomic characteristics" (p. 373) and interactions amongst peers, teachers and parents. Singapore, as a nation-state whose only resource is human capital, meant that there is co-existence of both *deregulation* of education, in the form of autonomy given to schools, and *regulation* through the guise of academic performativity (see section 6.3.3). The paradox of learning within this high-stakes examination environment meant that there are challenges to sustainability issues (Albright et al., 2009; Choy, 2013; Tan, 2009) in the adoption of Western curriculum. Nonetheless, as Lee, Hung and Teh (2016) observe, Singapore occupies a unique position in the realm of education by the "hybridisation of [both] Western and Asian pedagogies" (p. 60). This meant that whilst student-centred approaches have their benefits, there needs to be an incorporation of teacher-centred approaches. However, these teacher-centred approaches are dependent on *when* and *the extent of how* they are used in classrooms (see Hogan, 2014). This unique position complicates the education paradox but is a necessary element that needs to be taken into consideration in the planning.

East Asian learners' preoccupation on high-stakes examinations is often described as at odds with their Western counterparts (Kember & Gow, 1991; Marton, Dall'Alba, & Tse, 1993; Watkins, Regmi, & Astilla, 1991; Watkins & Biggs, 2001). Accordingly, in the design and implementation of a blended learning approach in Singapore, it is critical that the cultural background of such learners is taken into consideration, particularly because the singular focus on examinations could underline a potential dilution of learning. In fact, the literature on East Asian learners observes that Asian learners tend to engage in rote learning, a method frowned upon in Western educational contexts (Purdie & Hattie, 2002). Accordingly, the tasks, described in this current study, are designed to draw out students' aspects of learning. For instance, in tasks such as blogs and wikis, students had initially complained about the lack of teacher guidance but eventually realised that the "hands on" experience was useful in a more thorough understanding of each respective text type. Even in examination preparation tasks such as Paper 1 and Paper 2 on GoogleDocs, students do not simply engage in rote memory or what Marton et al. (1997) define as *surface learning*. In fact, to address the questions, students needed to engage in deep learning as evident from their application to the demands of the task. Furthermore, though the Asian learner mentality has its tenuous hold on the Singapore education system and in that respect, the focus on academic performativity, all the students highlighted that they preferred the practice exercises because they were helpful. This runs contrary to what Chang and Ho (1992) observe, which is that academically weaker students were "more performance-oriented" (p. 51). In fact, in the example of needing more handwritten tasks as practice in view of the upcoming examinations, meant students' preoccupation with the examinations. Therefore, it is important to note that academic performativity factors largely in the education system and students, acculturated in this environment, tended to prioritise work that prepares them for the examinations.

In summary, it is important in the adoption of a foreign pedagogy to acknowledge and address students' cultural background and potential constraints into the local educational system. For example, though Singapore's education is highly focused on academic performativity, it could be leveraged upon in the design and

implementation of a blended learning approach. This will be discussed further in the next section.

### *6.4.4 Overlaps: Pedagogical and Technological*

Research question 3 aimed to explore three key areas in the design and implementation of blended learning but the findings showed that it was not possible to see them as such clear demarcations. Instead, these considerations are dichotomies that both contrast and complement each other which is explored in the following two sections.

This section explores the overlap between cultural and technological considerations. This is most critical to this study because it is essential to understand nuances of cultural considerations of the learning environment and how they best fit the technological demands of a blended learning research design. Within the findings reported in this study, it is noteworthy to observe that the students were not only Singaporean learners focused on academic performativity but also students that belonged to the digital generation.

***Digital Generation.*** The findings showed that students were clearly digital natives. They exhibited dexterity in the adoption of appropriate technological tools that best addressed the demands of their school curriculum, thus, echoing what Brown describes as "multiprocessing" (p. 13). As digital natives, they were clearly accustomed to speed and dynamic information and learning (Prensky, 2001a; 2001b; Tapscott, 1998; 2009). Furthermore, these students in seeking alternative recourse in completing their tasks, albeit, on social media platforms (e.g. WhatsApp, Google Chat, Skype, etc.), created a community of practice where they "networked, share[d] ideas, ask[ed] for help and [received] feedback" (Kennedy & Fox, 2013, p. 75). However, though students reported that online tasks were useful in their learning, they did not regard it as critical in their formal learning (Barnes, Marateo, & Ferris, 2007; Oblinger & Oblinger, 2005; Philip, 2005). As mentioned earlier, though they found that tasks such as the creation of blogs and wikis were interesting, what they regarded as most rewarding was the examination preparation essays on GoogleDocs. This pragmatic

acquiescence of their *want* and *need* echoes Thompson's (2013) observation of the digital natives' "get in, get the answer out" (p. 21) behaviour. Furthermore, the findings from this study also found that there was little evidence of students' inclinations toward "increased use of technology for teaching" (Waycott et al., 2010, p. 1209). Accordingly, whilst digital natives displayed a proclivity for social media, it did not quite extend to their formal learning. The findings, as described in the previous chapter and section 6.3.1, show students' resistance to anything that diverts from traditional classrooms or what they have been previously acculturated to in terms of what constitutes learning within a classroom.

***Digital Natives and Education.*** Despite being born into the digital age, students were clearly uncomfortable with the introduction of technological tools or online activities in which they had little or no exposure and in this case, the forum. This corresponds with what Kennedy et al. (2007) found; that digital natives' use of Web 2.0 technologies such as blogs and wikis are not necessarily as prolific as what Barnes, Marateo, and Ferris (2007b) claimed. In fact, Kennedy et al. (2007) argue that blogs are not quite the "staple" (p. 522) of the digital generation's daily technologies use and that not all students are bloggers. Likewise, the findings presented in this current study echo similar results. Students visited blogs infrequently, forums were places to visit only when their computers needed "fixing" and wikis were only accessed for quick information. By highlighting that this is a matter that goes beyond everyday social habits, students' alienation of these technological tools is a result of the academic performativity ethos. Moreover, students viewed teachers' feedback as the voice of authority and subsequently, instrumental in their quest for distinctions in examinations. This is not to say that students rejected blended learning and did not regard it as beneficial to their learning. In fact, they found blended learning useful and would recommend this learning approach for their juniors. However, what they felt provided them with different perspectives in their learning were tasks placed on GoogleDocs that replicated pen-and-paper assignments. In a way, this is not unlike what Thompson (2013; 2015) observes on digital natives' use of technological tools where they would choose the tools to fit the tasks. Their preference for GoogleDocs and not Wiki or blogs on LMS could be attributed to firstly, their past experiences with

GoogleDocs and secondly, the advantages afforded by the technological tool in academic performativity, thus, underscoring these as potential considerations in the design of a blended learning approach.

***Independent Learners.*** One of the pedagogical demands of the LangLit curriculum encourages students to embark on independent research. As IBDP students, independent research is a critical aspect. The IB learner profile details that students need to be *inquirers* and are expected to be imbued with the skills to "conduct inquiry and research and show independence in learning" (Bullock, 2011, p. 9). Even though these students were focused on high-stakes examinations, the findings reported in this study showed that these Singaporean learners were not averse to non-examinable tasks. Most of the students acknowledged that blended learning was useful in providing them with multi-perspective learning experiences and opportunities to engage in independent research through the world-wide-web. In fact, the interview findings revealed that students did embark on some form of research, regardless of whether they were online or written assignments. Students conducted research almost as a second nature as they embarked on an assignment. Thus, these students as digital natives appeared to automatically employ technological resources to assist them in their learning, thus, showing a symmetry between the curriculum and technology.

However, it is also necessary to highlight that students' ideas of conducting research is limited to a Google search or to simply WhatsApp each other. This is not unlike what others have conjectured on this digital generation having developed a set of skills in their scholarly search for information (Brabazon, 2007; Griffiths & Brophy, 2005; Kennedy & Judd, 2011), albeit, in "a fairly unsophisticated manner" (Kennedy & Judd, 2011, p. 127). What this draws attention to is that though students were generally aware of the technological tools at their disposal, this did not automatically translate into an intelligent use of these tools for their learning. Instead, they needed to be taught how to search for academic articles as well as be made aware of the *pagerank* algorithm that Google employs. Furthermore, besides needing to encourage students to adopt and leverage on more sophisticated online information search,

students, too, need to be educated to exercise *digital wisdom* "to find practical, creative, contextually appropriate, and emotionally satisfying solutions to complicated human problems" (Prensky, 2009, p. 3). This is essential as the future is "unimaginably complex" and it is necessary for them to know "the tools of wisdom" that are accessible even to "the least wise digitally enhanced human" (Prensky, 2009, p. 1). Accordingly, as Kennedy and Judd (2011) emphatically state, "the answer is largely 'no'" (p. 132) to whether students show digital wisdom in their scholarly search for information.

***Implications.*** Nevertheless, what is more significant is that students need to learn and be taught (Prensky, 2009), a point of consideration for the design of a blended learning approach. All of this must not be detached from the pedagogical aims of the curriculum and needs to be addressed in any blended learning design. For example, one of the learning approaches of LangLit syllabus, as outlined by IB, is cyclically *inquiry-based*. In other words, an inquiry cycle when properly executed would scaffold knowledge construction, allow for critical and/or creative thinking and inculcate self-regulated learning skills. As a result, students would not only develop their metacognitive ability but also, communication skills. One of the ways in which this could be put into action in blended learning, would be planned group tasks that allow students to engage in research online. As mentioned in section 6.4.1., these learning approaches should not be regarded as neat compartments of pedagogy but rather viewed as integrated and applied according to curriculum demands. Hence, Table 13 maps the learning approaches as delineated in Li's (2012) *Approaches to Learning: Literature review* and their key characteristics to suggested blended learning activities.

Table 13. Li's (2012) Learning Approaches

| Learning Approaches | Key Characteristics | Suggested Blended Learning Activities |
|---|---|---|
| Inquiry-based | • Inquiry cycles<br>  ○ probing questions that model and scaffold knowledge construction<br>  ○ Critical, creative thinking<br>  ○ Self-regulated learning skills<br>  ○ Metacognitive ability and communication skills | • Research on given group tasks<br>  ○ Online platforms<br>  ○ F2F |
| Problem-based | • Authentic problem scenarios<br>• Small groups collaboration<br>• Inquiry strategies and inquiry cycles<br>• Higher-order thinking skills are practised | • Group tasks with little teacher facilitation |
| Self-regulated learning | • Self-regulated learning skills<br>  • Self-assessment; self-reflection<br>  • Reciprocal teacher-student conversations<br>  • Peer collaboration<br>  • Teacher feedback<br>• Internalisation of self-regulation strategies | • Review of completed tasks (written and/or online)<br>• Oral Presentation of online tasks (e.g. Wiki, Blogs, etc.)<br>• GoogleDocs with peer review |
| Effective collaborative learning | • Collaborative learning can be defined as a learning environment in which students make contributions to solve problems together | • Group tasks online |
| Situated and embodied cognition model (Teacher-led) | • Relationship between abstract concepts and the context needs to be explained<br>  ○ Scaffolded experience, analysis and reflection<br>• Formative assessment and feedback | • Classroom teaching pedagogy and feedback |
| Cognitive Apprenticeship model (Teacher-led) | • Identify the processes of a task and explicitly demonstrate how the task can be accomplished;<br>• Abstract tasks situated in authentic contexts<br>• Diversification of contexts and articulate common underlying concepts to scaffold transfer | |
| Integrative Approach of curriculum design (Teacher-led) | • Interdisciplinary model of curriculum design<br>  ○ Blend of skills in both the language and literature component | • Group tasks that focuses on literature-based content but set within the language components |

In addition, though these students belonged to the digital generation, it is observed from the findings that they were digital natives only with the use of social media tools. For example, though 85% of students use text messaging or some form of social media every day, students were not correspondingly savvy with Web 2.0 technological tools. For some of the students, their maiden experience with the construction of Web 2.0 technological tools (i.e. Wiki, blogs) was viewed as interesting but not critical to their learning. Instead, GoogleDocs was revered as the most

pragmatic and useful platform. Students cited the functions provided in Google Drive/GoogleDocs (e.g. organisation of their work, chat, autosave, fewer clicks, real time updates, etc.) as pragmatic and user-friendly. However, this is because GoogleDocs is an electronic replication of their handwritten assignments. The technological benefits of saving the documents online were acknowledged but more notably, they served as important aids for examination preparation, thus, emphasising themselves as Singaporean learners preoccupied with the demands of high-stakes examinations and teacher guidance. Yet, interestingly, these students also regarded themselves as independent learners because they had to conduct more research as compared to a previous teacher-centric teaching pedagogy.

As such, in the design and implementation of a blended learning approach, it is not enough to recognise these students as Singaporean learners but that they are also digital natives. These two areas are not divorced from each other but rather work in tandem and the complexity needs to be acknowledged in any design and implementation of a blended learning approach.

### *6.4.5 Overlaps: Technological, Cultural and Pedagogical*

This last section examines the overlaps of all three considerations. As explained earlier, research question 3 was intended to examine the cultural, pedagogical and technological considerations necessary for the effective design and implementation of blended learning in Singapore. The interplay of the larger context of education policies that students have been exposed to from their schooling years, the demands of the IBDP LangLit curriculum and the digital generation adds to the complexity when considering an introduction of blended learning into Western-imported curricula such as the IBDP. From the findings reported in the previous chapter, three of the following themes are clear indications of the interplay between these three considerations and are worthy of further consideration in the adoption of blended learning in the curriculum. The three themes are as follows: Theme 1: conundrum of time and pressure, Theme 3: blended learning in the LangLit Discipline, and Theme 6: disjuncture between students' views on groupwork and their actions.

***Theme 1***. The conundrum of time and pressure can be seen as an interplay between both pedagogical and cultural, which leads to certain adoption of technological tools in this programme. The issue of academic performativity has been expounded repeatedly in this study. After all, learning, for the Singaporean student is, on a superficial level, one that is geared toward high-stakes examinations. This is not unique to this study as seen from previous studies conducted in the Singapore context (see Ang, 2015a, 2015b; Albright et al., 2009; Jacobson et al., 2010; Lim, 2006; Parker et al., 2003; Tan, Macdonald, & Rossi, 2009). This educational situation is also not exclusive to Singapore and seen from the literature on Asian learners (see Kember & Gow, 1991; Kennedy & Fox, 2013; Lai, Shum, & Zhang, 2014; Liu & Littlewood, 1997; Rao, 2002; Stigler & Stevenson, 1991; Watkins, Regmi, & Astilla, 1991). Nonetheless, as mentioned earlier, the complexity is not simply about Asian learners but students who have been acculturated from the moment they begin school at age six years to teaching approaches heavily directed by Singapore education policies. The paradox of deregulation of education by providing schools with more autonomy over their curriculum, and yet needing to ensure that there is still regulation in the quality of education, meant that this can only be done through academic performativity.

However, it would be remiss to dismiss the Singapore educational reforms because they aim to maintain Singapore's position as "a competitive nation in a globalized and neoliberal world" (Tan, Macdonald, & Rossi, 2009, p. 368). Yet, Singapore's education system is not wholly Asian. As Lee, Hung and Teh (2016) observe, the Singapore education scene is one that hybridises both Western and Asian pedagogies. This observation is reflected in the context of this study with the implementation of a Western curriculum such as the IBDP in a Singapore classroom. The IBDP's demands of curriculum and assessment has its challenges because the balance between "the attitude/value, knowledge and skill development requirements" needs to be addressed "within a two-year curriculum" (Lai et al., 2014, p. 92). This results in "tensions between the ideals of the IB education philosophy and the practical day-to-day realities" (Wright & Lee, 2014a, p. 212) and is a tangible problem that confronts schools from different continents that have adopted IBDP (Bent, 2009; Doherty & Shield, 2012; Gan, 2009; Lai et al., 2014; Loh, 2012; Tamatea, 2008).

Likewise, within the context of this study, the findings report that students were plagued with not only time-starved issues but were also, given the focus on high-stakes examinations, subjected to peer pressure. Consequently, students cited a preference for a top-down learning pedagogy (i.e. lectures). This, they felt, allowed them to deal with the constraint of time because they were automatically geared toward *what counts most in the examinations* by the teacher. The interplay between the demands as a Singaporean student within an academic performative culture and the pedagogical demands of the IBDP and students' conflicting views of technology results in a rather ironic verbal rhetoric on the inclusion of ICT in the classrooms. For example, whilst they agreed that there were benefits to blended learning, the online tasks were dismissed as less important in the avalanche of deadlines. Technology, as a result, was deemed as an add-on and not as a complement to their learning. Their learning, according to the students, could also be easily addressed through top-down lectures.

Thus, it is necessary to both acknowledge and address the potential gains, in terms of specific learning goals that contribute to the examinations, that students could garner from their online group tasks. After all, if there is explicit communication about the aims of the tasks and even if the situation is somewhat challenging, there could be potential learning gains (Lineham, 2013; Wright & Lee, 2014b).

***Theme 3.*** Nevertheless, the students' ironic rhetoric did not mean that they regarded a blended learning approach as a lost cause. Rather students reported that the use of technology helped to contribute to the relevancy of the subject. After all, the objective of LangLit is to encourage "active engagement with language and culture" which in turn will lead to a more empathic understanding of "the world … [they] live" in (ibo, 2011, p. 5). To the students, the subject matter of LangLit is one they regarded as applicable to the real world and blended learning served as a bridge between curriculum and real-life relevancy. In other words, they felt that the subject matter became authentic through blended learning because the use of technological tools

acknowledged them as digital natives. This finding seems to contradict students' reports that they preferred more didactic teaching when they were pressed for time.

However, this contradiction could be seen as a reflex and safe mode in which students tended to retreat to because it allowed them to rely on rote-learning and memorisation in a bid to save time. Nonetheless, the ironic rhetoric that students espouse also supports what Kember (2000) observes about Asian students as not being "inherently resistant to innovative teaching strategies" and are "perfectly capable of participating actively in their own learning" (p. 117). Consequently, despite issues of time and academic performativity, there are clear merits to the use of blended learning in the IBDP LangLit curriculum. Furthermore, students' seeming contradiction in terms of teaching and learning pedagogy in the classroom does not dilute their agreement that the curriculum's *global engagement* and *international-mindedness* does have twenty-first century relevance.

***Theme 6.*** Collaborative learning is one of the areas which the IBDP stresses (ibo, 2015; Li, 2012). The student-centred pedagogical approach is one that allows students to engage in inquiry-based and/or problem-based learning together. In addition, the collaborative learning environment of blended learning draws on Vygotsky's (1978) social constructivism where students work together in online environments that helps to construct knowledge collaboratively in an authentic manner (Monteiro & Morrison, 2014; Sharpe et al., 2006). Clearly, there are benefits to groupwork. However, the conception of Asian learners is that they tend to shy away from groupwork because they are more reticent (Strother, 2003). Yet, the findings reported in this study showed that students generally found collaborative work to be useful because of the differing perspectives provided by members of the group. Accordingly, the claim that Asian students are passive learners (Cheng, 2000; Jones, 1999; Kember & Gow, 1991; Littlewood, 1999; Liu & Littlewood, 1997; Rao, 2002; Strother, 2003) might not be an accurate assessment of these students.

Nevertheless, the incorporation of collaborative learning into the LangLit curriculum underscores tensions between pedagogy, culture and the use of

technology. For example, when given a task on Web 2.0 technological tools such as wiki, and blogs, students would adopt a *divide-and-conquer* strategy aimed at saving time. However, they quickly realised that this strategy also led to fragmentation when they tried working on an essay together. They immediately counter-proposed a solution such as working in pairs, thus, taking active interest in their learning. More significantly, students did not entirely dismiss the *divide-and-conquer* strategy in collaborative groupwork. They realised that by working in pairs where one of them work on the essay as a piece of individual work and the other group member served as a critical peer-reviewer, meant that the class was building a database of essays in which they could tap for their revision. The essays were not only useful in terms of the content, but also provided them with examples of different writing styles and expression that they could learn from. All of these displayed tenets of Vygotsky's (1978) social constructivism which emphasises situated learning and metacognition. After all, teaching approaches should no longer be didactic but more student-centric for these so-called digital natives. As Vygotsky (1978) argues, the *zone of proximal development* with both teacher and peers meant that learning is a collaborative process and subsequently, the learning is no longer on the product but on authentic (i.e. real world relevancy) learning (Cohen et al., 2010). Consequently, these students by proffering a refinement to their group size underlines that though the teacher-researcher has mediated the environment by introducing online groupwork, students have now mediated, albeit, in a rather rudimentary way, the learning environment to better suit their learning.

Nonetheless, a closer examination of the learning reveals that these were embryonic attempts made to engage in more student-centric learning approaches. For example, students admitted that the group essays were, on the one hand, useful as a database of revision materials but they would only refer to essays that had been marked by the teacher and disregarded those that were peer marked. Does then the performance-oriented background of these learners suggest that there could be a potential dilution of the student-centred learning pedagogies that IB advocates? The answer would appear to be an emphatic *yes*. The cumbrous examination machinery seems to undermine not only IB's pedagogical strategies, but also dilute the potential

benefits of including technological tools such as GoogleDocs. The use of GoogleDocs was initially intended to encourage students to work as critical peer-reviewers which may, in turn, assist them in their own writing, albeit, self-regulated learning. However, with the focus on 'trusting' only the teacher's feedback, this exercise could just as easily be replaced by a pen-and-paper exercise. This is not to say that the use of technology was completely one without merits but rather that the complexity of the interplay between pedagogy, cultural and technology is one that warrants closer exploration.

In summary, the intersection of the three areas of consideration; cultural, pedagogical and technological, manifests itself not only in groupwork but also reveals much about students' application and mediation in their learning. For instance, the findings on groupwork reveal that students felt that they were hindered by the cumbersome LMS and consequently, group interactions either petered out or were unnaturally awkward. Instead, this digital generation, in a bid to complete their tasks, moved their discussion to social media (e.g. WhatsApp, Skype, etc.) or what they considered as more user-friendly platforms (e.g. Google chat, GoogleDocs) before transferring the completed task to LMS. This move concurs with Thompson's (2013) description of digital natives as "active agents" (p. 481) who will seek alternative technological tools to solve their problems. The complexity of the intersection of three areas of considerations might seem daunting but are a necessary element in the effective design and implementation of blended learning in Singapore.

### *6.5 Final Comments*

This chapter discussed, first, the ways blended learning could be implemented in IBDP English A classrooms. Second, it explored students' experiences and perceptions on the effectiveness of blended learning and lastly, the considerations needed for the effective design and implementation of blended learning.

In discussing the ways which blended learning can be implemented, it is useful to draw on (1) the principles of DBR to design the curriculum and (2) in the design of a pedagogical unit; Garrison's (2006) collaborative design principles (e.g. *design*,

*facilitation*, and direct *instruction*) are particularly useful. These two areas needed to be planned in tandem within the context of the research study for a more effective implementation. Three contradictions arose from the discussion on students' experiences and perceptions on the effectiveness of blended learning. The conundrum of digital natives enjoying the benefits of technological tools did not necessarily translate into their formal learning. Second, though they are touted as an IB internationalised and independent learner, the curriculum was constrained by the use of Eurocentric texts and a lack of clarity on the definition of what constitutes international-mindedness. The final contradiction lies in the centralised decentralisation of the Singapore education system which allows for varied programmes such as the IBDP but led to regulation of these education programmes through academic performativity. This results in little or no change in the learning mind-set of the students. For an effective design and implementation of a blended learning approach, it is useful to consider not only pedagogical, cultural and technological aspects but also the overlaps, particularly, in all three areas which echoes the three paths (i.e. political, cultural, technical) observed by Corbett and Rossman (1989).

## Chapter 7: Conclusion

This research study examined the ways in which a blended learning approach can be implemented in the IBDP English A classroom. It also explored students' experiences of the blended learning approach and their perceptions of the effectiveness of it in their learning. Lastly, it proffered important cultural, pedagogical and technological considerations needed for the effective design and implementation of such an approach in the context of Singapore. In short, the findings from this research study suggest that a blended learning approach can be implemented in the Singapore education context if key design aspects (i.e. cultural, pedagogical and technological) are taken into consideration. More significantly, the findings describe for the first time how a blended learning approach could be used in an IBDP English A classroom.

In this final chapter, a review of the findings that addresses each research question will be presented with the intention of offering further insights and understanding to the existing debate on the use of a blended learning approach in the Singapore context. Students' perceptions of the effectiveness of this learning will also be proffered and ways in which it could be implemented in the Singapore context suggested. Next, limitations and future recommendations will be discussed. It is necessary that these conclusions are viewed within the specific context of the school and classrooms reported in this study. However, the findings offer a reasonable degree of generalisability for a wider Singaporean context for the following reasons. Firstly, the findings do echo to some degree the research on digital natives in blended learning classrooms. Secondly, issues on tension between the implementation of an innovation and localised issues (e.g. the MOE's initiatives and Asian students' focus on assessment) also reiterate intervention studies conducted in Singapore (Albright et al., 2009; Fang, 2007; Tan, 2001; Lesley Vidovich & O'Donoghue, 2003).

### *7.1 Overview of Findings*

The findings of this study align with prior research on how DBR principles help in curricular interventions (Barab, 2014; Cobb et al., 2003) on digital natives learners (Kennedy et al., 2007; Prensky, 2001; Watkins & Biggs, 2001), using a blended learning

approach (Garrison & Kanuka, 2004). This section presents an overview of major findings and conclusions in relation to the research questions and is organised into three main parts:

1. What are the ways in which a blended learning approach can be implemented in the IBDP English A classroom?
2. What are students' experiences of the blended learning approach and their perceptions of the effectiveness of this approach for their learning?
3. What are the important aspects that need to be taken into account in the effective design and implementation of a blended learning approach in this specific educational context of Singapore?
    a. What are the cultural considerations?
    b. What are the pedagogical considerations?
    c. What are the technological considerations?

### *7.1.1 Implementation of Blended Learning in English A Classrooms*

The main findings of this study suggest ways (e.g. *research design* and *curricular design*) in which a blended learning approach using DBR can be implemented in an IBDP English A classroom.

Core principles that play a key role in the *research design* are the iterative cycles within the research design and the cyclical curriculum design. Within the design, multiple iterations need to not only draw on observations and field notes but the feedback of the student-participants to help to refine the next iteration. In addition, the blended learning structure needs to be defined and flexibility allowed for pedagogical changes. The cyclical curriculum design that includes both face-to-face and online need to complement and accommodate the demands of both students and curriculum so as to facilitate the transformation of traditional classroom to blended learning. In contrast to Tham and Tham's (2011) findings, this study found that students' feedback on how the online activities could be further refined to their needs not only underscores ownership over their own learning, but also rejected claims that Singapore's e-learning is usually an online imitation of existing learning materials, and lacking teacher-students' interaction. Moreover, the iterations with the research

design can help to mitigate initial discomfort with students accustomed to didactic teaching.

Another way in which blended learning approach could be used are the considerations of key strategies within the *curricular design*, namely collaborative work. Findings from this research study concur with other studies on collaborative learning (Garrison, 2006; Lave & Wenger, 1998; Wenger, 1999, 2006) that whilst this learning strategy can reap benefits, there are challenges. Thus, it is essential to bear the following three areas drawn from Garrison (2006) in mind when creating a community of inquirers that engages in meaningful learning experiences:

1. *Design*. Meticulous design of a conducive social environment that fosters a community of inquirers.
2. *Facilitation*. Careful facilitation that encourages collaborative and reflective discourse.
3. *Direct Instruction*. Direct teaching intervention needs to be conducted as and when it is required.

These findings are broadly consistent with studies conducted on blended learning in Singapore (e.g. Fang, 2007; So, 2009; Tham & Tham, 2011). Students agreed that blended learning was an interesting and useful inclusion and even recommended that the next cohort of students engaged in it. However, students' preference for face-to-face interactions instead of online interactions were also observed in the light of a strong academic performativity ethos. Nonetheless, it is a critique that is not new (see Margaryan, Littlejohn, & Vojt, 2011; Monteiro & Morrison, 2014; Wang et al., 2014).

### *7.1.2 Students' Experiences and Perceptions of Blended Learning*

Overall, the findings suggest that blended learning was useful and relevant for this present study's digital natives. Students reported that blended learning helped in enhancing their learning experiences with LangLit because of the relevancy of using online resources to teach them current-day texts. Furthermore, the use of the online medium acknowledged their needs as the so-called digital natives and brought modern currency to their classroom learning. On the other hand, the findings also show that for these students, online activities were easily side-stepped when they

were confronted with time constraints. Even though this study was conducted over a period of six months, students remained critical over perceived non-teacher feedback and unfamiliar online platforms. This is perhaps unsurprising especially since students have been accustomed to a culture of schooling which tended to be more didactic in nature and one with minimal online collaborative work. Nonetheless, of particular significance are three dominant contradictions that arose from the students' interviews (each considered further in the text following): (1) digital natives in formal learning, (2) IB and LangLit educational aims, and (3) paradox of the Singapore education system.

***(1) Digital Natives in Formal Learning***. The survey findings observed that the digital natives do possess the necessary technological tools and needed little technical assistance. However, contradiction arose when these so-called digital natives were placed in a formal learning environment. The main finding from the students' engagement in online activities was that they neither adopted differing learning styles nor displayed sophisticated understanding and use of the technological tools. These findings echo Kennedy et al.'s (2007) study on students' unfamiliarity with Web 2.0 technological tools such as wiki and blogs. When placed in groups to work on these activities, students resorted to similar tactics employed in face-to-face interactions – *divide and conquer*. They were almost mechanical in completing the assignment and hence, there was little indication that the online task was enhancing their collaborative learning. Students were also highly critical of the LMS platform and complained at length on the cumbersome login and platform. Akin to Gurung and Rutledge's (2014) description of digital natives' *personalised digital habits and niches*, the students in this study indicated their preference for GoogleDocs, something that they engaged with previously. Furthermore, observations on their preferences for *pen-and-paper* examination preparation exercises and face-to-face group discussions are not new (e.g. Ben-David Kolikant, 2012; Wang et al., 2014). Consequently, in this first contradiction, though students felt that blended learning recognised their learning needs as part of the digital generation, they were unconvinced with the place of it in their formal learning, particularly towards their summative assessments. An implication of these

findings is not only an awareness of students' digital literacy and preference on type of technological tools but that explicit links to assessments must be continually made.

***(2) IB LangLit Educational Aims.*** The second contradiction arose from the tension between IB educational aims and the LangLit curriculum. These findings described for the first-time students' reception of the LangLit curriculum. Generally, students reported their preference of this subject because of its applicability to the real world and blended learning provided them with *hands-on* practice. However, the LangLit programme adopts a largely Eurocentric curriculum and students reported struggling with these Eurocentric texts at the beginning of the course. Academics argue that these texts are largely from the Western canon and hence, students might struggle with cultural references that are divorced from their own (see Bent, 2009; Fox, 1985; Loh, 2012; Poonoosamy, 2010). But, in contrast, the findings from this study show that the issue was not so much alienated cultural references but the way which these texts were written. Students, once acculturated to the writing styles of each of the authors, reported their enjoyment of these texts. In addition, the IBDP does not just focus on the curriculum but also includes IB's educational aims such as international awareness and intercultural understanding. Literature has argued that these lofty educational claims are problematic because of the broad guidelines and the short span of time given to conduct the IBDP (see Cause, 2011; Hayden & Wong, 1997; Haywood, 2007; Starr, 2009). Moreover, exposure to international awareness may not be a product of formal learning but could include students' personal experiences, thus, resulting in a rather superficial treatment in the classroom. Consequently, an implication of these findings is that an understanding of this conundrum of the IB educational aims and LangLit curriculum, together with careful teacher curation of such complex ideas within the time constraint of IBDP could be partially alleviated through an exploration of different cultures via the online medium. Thus, helping to refine the design features needed for better student engagement within blended learning environments.

***(3) Paradox of the Singapore Education System.*** The final contradiction relates to the tension between the Singapore academic performativity culture and the

pedagogical underpinnings of the IBDP. Students reported that they enjoyed the online activities but would prefer more focus on formative and summative assessments, especially for those online activities that addressed these concerns. Though this finding aligns with the literature on Asian learners' preference for a transmission model of learning where students in this study indicated a preference for detailed instructions because it meant less 'wasting of time' (see Cortazzi & Li, 1996; Littlewood, 1999; Wachob, 2000), it also displayed a disjuncture with IB's educational aims of creating critical and independent learners. However, in contrast to the literature that claimed Asian learners were more inhibited and passive as compared to their Western counterparts, the IBDP summative assessments 'forced' students to engage in both critical and independent thinking in applying their understanding to address examination questions via GoogleDocs (e.g. Kubota, 1999; Watkins & Biggs, 2001). Thus, one of the implications of this is that the academic performativity culture of the local context must be acknowledged and included in the design of the blended learning approach.

### *7.1.3 Recommendations in Using a Blended Learning Approach*

This section examines the cultural, pedagogical and technological considerations needed in implementing a blended learning approach. However, what had been previously conceived in the initial planning of this research study as three separate areas were no longer sufficient. Instead, as the findings show, the complexity of an intervention meant that the considerations are not isolated entities but rather the overlaps provide a more nuanced picture as seen in points 4 and 5 below. The following are conclusions that are drawn from the findings:

1. *Pedagogical Consideration*. Thorough understanding of aims and objectives of the curricular programme by teachers which the blended learning approach is situated in.
2. *Technological Consideration*. User-friendly access on both computers and mobile devices are preferred over sophisticated platforms.
3. *Cultural Consideration*. Cultural backgrounds of both students and institution need to be considered.

4. *Pedagogical and Technological*. Technological literacy needs to be taught in tandem with the curricular objectives and refined according to needs.
5. *Technological, Cultural and Pedagogical*. Sufficient time and flexibility for refinements of design need to be factored in for all three considerations to work in tandem.

These findings suggest that the use of a blended learning approach needs not only careful design but that during the implementation stage, constant revision to students' needs must be made.

*7.2 Implications for Literature, Practice and Policy*

As mentioned in Section 2.2.2, there is an absence of studies conducted on the use of blended learning in IBDP LangLit classrooms. Current research studies have examined the objectives, mission and values of IB and old English A curriculum. Thus, the outcomes of this study not only fill the gap but contribute to the literature on IBDP LangLit in Singapore, blended learning within IBDP, curriculum development and pedagogy.

Firstly, this study is important for the literature concerned with the use of blended learning, particularly in the IBDP LangLit classroom. Contrary to past research on e-learning in Singapore (see Ho, Nelson, & Müeller-Wittig, 2011; Jacobson et al., 2010; Tham & Tham, 2011) where online platforms become a mere import of existing teaching and learning materials or that there was a lack of two-way communication between teacher and students, this study suggests that the DBR iterative structure could help to negate these challenges and provide relevancy to the learning of LangLit. Existing research on IBDP has also noted that time is one of the factors that could potentially hinder a thorough execution of IBDP aims and objectives (Lai, Shum, & Zhang, 2014; Lineham, 2013; Loh, 2012). However, the use of blended learning in this study showed that when collaborative and non-collaborative activities are integrated within the classroom, together with the digital and physical spaces, thus, providing a more equitable avenue in students' learning, the challenge of time could be negated to a certain extent.

Secondly, this study contributes to the literature on how pedagogical underpinnings of IBDP could be implemented in the classroom. IBDP's aims of providing a list of learning approaches (i.e. see Li, 2012) was meant to allow for more flexibility in the manner which they are interpreted in the classrooms but limited explication on how they should be incorporated could result in a rather *ad hoc* and undocumented use of them. This current study contributes to the IB literature (ibo, 2015) by means of articulating how these learning approaches (i.e. *inquiry-based*, *problem-based, collaborative learning* approaches, etc.) was leveraged upon using online collaborative activities.

Thirdly, the results of this study also inform classroom practice that adopts a blended learning approach. It provides information and structure for researchers, curriculum developers and teachers interested in the use of blended learning in the classroom. The study reported noted that a thorough comprehension of the aims and objectives of the IB programme, together with the LangLit syllabus is critical in any existing education system. As discussed in Chapter 6, this study also argues for IBDP teachers to harness the world of technology to bring relevancy to their classrooms for the so-called digital natives. The *Considerations Model* also proffers ways for both curriculum developers and teachers interested in adopting a blended learning approach. At the classroom level, particularly, in the IBDP LangLit classroom, the interplay between *technological*, *cultural* and *pedagogical* considerations of the *Consideration* Model have implications for teachers in adopting blended learning. In addition, collaborative work, such as those demonstrated in this research study, provides a more nuanced view of the way students conducted the group work where they often adapted and moved their discussion to familiar technological platforms (e.g. Whatsapp, Skype and GoogleDocs). Nonetheless, of primary importance is an understanding of the demands on time and assessment criteria. Accordingly, learning goals that are made explicit and addressed students' concerns will promote the potential gains in the use of technology in the classroom. All of these offer teachers insights to not only their own practices but students' as well, thus, proffering directions for change in the implementation of a blended learning approach.

Lastly, the findings have implications for researchers and IB educators in the Singapore educational system interested in exploring new technological innovations. The results demonstrate the importance of teachers to possess knowledge on the relationship between the use of technology and the existing curriculum. The findings have significant implications for policy relating to the use of ICT in the classrooms. It proposes ways in which technology could be successfully incorporated into the local curriculum whilst addressing both teachers' and students' concerns with time and assessments. Moreover, it must be noted by policy makers that professional development enabling teachers to explore ways in which technological tools may be more efficiently incorporated into students' learning than new technological innovations should be considered.

### *7.3 Limitations of the Study*

Although the findings of this study highlighted and recommended key areas in which a blended learning approach could be implemented, certain limitations and areas for future research should be mentioned. This exploratory study has several limitations. The first limitation was the small sample size of two classes. As such, caution should be applied to the generalisability of findings from this small sample. Second, a limitation of this small sample was partly based on class availability to the researcher. However, though small sample size may be regarded as inhibiting wider variation of results, Strauss and Corbin (1998) reason that the constraints a researcher face may result in having little "choice and [needing to] settle for a theoretical scheme that is less developed than desired" (p. 292). Yet, others argue that small sample size might be a desirable because "this is the way in which analytic, inductive, exploratory studies are best done" (Crouch & McKenzie, 2006, p. 496). In fact, this study has sought to ensure that the data are what Yates et al. (2012) have advised *manageable* within the scope of this thesis. Admittedly, the study is a relatively short-term intervention research on pre-university students, though savvy with technological tools, they were novices in the use of technology in their formal learning. A longer-term intervention with different sample sizes and participants can further shed light on the sustainability of using a blended learning approach.

There are also inherent limitations to the data collection methods used in this study. One of the critiques of self-reported data is that students may proffer correct responses that are socially desirable, in other words, displaying what Hew and Brush (2007) observe as "the tendency to provide answers that cause the respondent to look good" (p. 246). Nonetheless, attempts were made to minimise error variance in this self-reporting through methodological triangulation, which included use of field notes and questionnaires. Whilst the nature of questionnaire responses was, similarly, self-reported data, the anonymised and standardised form of collecting the data is considered to be more objective (Miles & Huberman, 1994; Silverman, 2006). Furthermore, the use of a questionnaire is not only time-effective and practical but it is also relatively easy to implement. In addition, an eight-point Likert-type scale, aimed to negate social desirability bias (see Thompson, 2013), was used. Nevertheless, the self-report nature of the questionnaire remains a limitation.

The research was subjected to usual time constraints associated with the completion of a limited-time study and thesis. Consequently, it did not address issues on sustainability sufficiently. A long-term research in this area remains to be done. It is important to determine if the design documented in this current study is feasible for different batches of students. This is a significant area of any intervention work that requires longer periods of time but was not within the scope of this particular study. But, this limitation provides direction for further research.

### *7.4 Recommendations for Future Research*

Nonetheless, any study that involves student-centred strategies, complicated by e-learning, needs to acknowledge that it is a complex process. It is not simply a technological intervention of the curriculum but one that involves what Goodyear and Ellis (2008) describe as a delicate weaving of "activity, human relationships, and subtle adjustments to a changing … environment" (p. 149). An understanding of the relationship between these three areas correlates with the method of analysis and design and must become what they observe as "more organic and ecological" (ibid). After all, the design needs to bear in mind the learning outcomes and this can be accomplished through "conceptual frames and findings" (ibid). DBR is one such

framework (e.g. Cobb et al., 2003; Cobb, Zhao, & Dean, 2009) and this study also offers a *Considerations Model* to address increasingly complex blended learning systems. Accordingly, this has implications for teachers interested in using blended learning in classrooms. In order to align with the context and needs of the localised system, the *Considerations Model* can be used to map out key areas of concerns for a research design. Careful thought must also be given to the overlaps of the *Considerations Model* for a more effective implementation. Consequently, teachers can successfully develop an individualised blended learning approach based on the *Considerations Model* presented in this study.

Another caveat to this study is that it is designed and conducted by the teacher-researcher and hence, there is no need for what Fullan (1999) describes as teachers' *buy-in*. In future research that may involve other teachers, key recommendations include ongoing technical and pedagogical training and support for teachers who may lack relevant skills to function in a blended learning environment. Before teachers can be persuaded to attempt blended learning, pedagogical skills and understanding of how technology can be integrated to become "powerful pedagogical strategies" (Ertmer, 1999, p. 58) need to be introduced together with evidence that blended learning can result in meaningful learning outcomes, which previously has been challenging (see Fang, 2007; Monteiro & Morrison, 2014; Tham & Tham, 2011). Such awareness of barriers (e.g. organisation infrastructure, faculty training) must take place in the design and during the implementation of blended learning. This would help to minimise the barriers that Ertmer (1999) underscores as critical. Future research which includes scaling up would need to look more carefully at the professional development (PD) of teachers. More specifically, PD should not focus on technology *per se* but rather engage with the reconceptualisation and reorganisation of teaching and learning made possible by technology.

One key recommendation of this study includes a clear definition of blended learning. Blended learning is increasingly complex, especially when innovative elements, corresponding with the demands of the twenty-first century, are added to classroom teaching and learning (see Kerr, 2007). Subsequently, there must be a clear

explication of the blended learning approach used because this is critical in beginning conversations on curriculum design. If teachers are expected to adopt the use of technology in the classroom, awareness of curricular modification and corresponding skills of teachers are critical. Despite the challenges of implementing blended learning as reported in this study, students saw pedagogical advantages for their learning, critical thinking and academic performance. Students reported that whilst they might have prioritised assessments over the online activities, these activities were useful because it was a "reconceptualisation and reorganisation" of what they had previously experienced in their classrooms (Garrison & Kanuka, 2004, p. 97). One way to reduce teachers' and students' concerns on examination preparation is to provide them with ways on how blended learning could enhance their learning. For example, the use of GoogleDocs as a database of their revision essays is one such way. This study also suggests ways on how Garrison and Kanuka's (2004) model of blended learning – *thoughtful integration of classroom face-to-face learning experiences with online learning experiences* – can be further elaborated. The recommendation in adopting blended learning is that *thoughtful integration* focuses on students' collaborative work whilst drawing on the principles of collaborative learning (see Dillenbourg, Jarvela, & Fischer, 2009; Kirschner, 2008; Lowyck & Po, 2001; Sinha et al., 2015; So, 2009). In summary, blended learning allows new ways of thinking and designing teaching and learning in classrooms.

Students' digital literacy and their abilities cannot simply be assumed. Students need to be taught how to use the digital tools. They need to understand the objectives and advantages of both online activities and collaborative work. Students reported that online activities offered them opportunities in experiential learning which they admitted were advantageous. This study suggests that the objectives of tasks and collaborative work need to be made explicit so that students can understand potential challenges and advantages of online collaborative work, thus, maximising the benefits of blended learning. Teachers need to not only teach students but also provide opportunities for students to practise collaboration within a group, including ways to conduct discussion, listening skills, ways to contribute, provide positive evaluation and receiving feedback (see Laurillard, 2012). Additionally, ongoing facilitation and

intervention by the teacher (e.g. providing feedback) is of paramount importance. Further research is required in order to fully explore students' digital literacies and their use of technological tools for formal learning in relation to their summative assessments. These are the results that could assuage both teachers' and students' fears on their academic performance, if they are to be convinced on the use of technology in classrooms.

This study also suggests a way to address the twenty-first century rhetoric on the use of technology in classrooms. Whilst the exact design of this curriculum may not necessarily be generalisable across institutions, it does offer points of consideration. More significantly, since 2005, following a large-scale empirical research that collected baseline data on the pedagogical practices in Singapore schools, Luke (2005) argues that the education scene should move to one of intervention and scalability of intervention projects. One primary consideration from a policy perspective would be whether the use of a blended learning approach could scale across the institution and beyond. On a theoretical basis, that is possible, as mentioned earlier, if factors such as *cultural, pedagogical and technological* aspects are taken into consideration, together with *buy-in* from the staff. Accordingly, the *Considerations Model*, as recommended in this study, could provide a better foundation for future research. Future research could investigate how blended learning is used to enhance the quality of teaching and learning not only in the teaching of English A but extend itself to other disciplines. Additionally, though this was not the focal point of this study, future research could pursue how blended learning has helped students in their IBDP assessment scores.

In summary, the study reported proffers a consideration of how a blended learning approach could be 'imported' into different cultural settings through the use of the Consideration Model. In addition, this study also contributes to the literature by proffering a practice perspective on quandaries involving issues on time constraints in the teaching of the IBDP which differs from the IBDP literature that tended to focus more on abstract IBDP learning aims (i.e. the Learner Profile) and values (i.e. international-mindedness, multiculturalism, etc.). Finally, within the local educational

literature, this study offers new insights into technology use in the classrooms and suggests ways in which teachers could deal with the repercussions. A discussion of why a blended learning approach might be regarded as a potential adoption for policymakers is also offered.

## References


Ang, D. (2014). *Exploring the use of Professional Development to support teaching and learning with technology in Singapore schools: A Literature Review*. Unpublished assignment ED.S822: The Development of Professional Practice in Department of Educational Research Doctoral Programme in E-Research and Technology. Lancaster: Lancaster University.

Ang, D. (2015a). *Exploratory Study: IBDP students' conceptions of learning and ICT*. Unpublished assignment ED.S823: Researching Technology Enhanced/ Networked Learning, Teaching and Assessment in Department of Educational Research Doctoral Programme in E-Research and Technology. Lancaster: Lancaster University.

Ang, D. (2015b). *Digital Natives & Technology: An Investigation*. Unpublished assignment ED.S823: Researching Technology Enhanced/ Networked Learning, Teaching and Assessment in Department of Educational Research Doctoral Programme in E-Research and Technology. Lancaster: Lancaster University.

Albright, J., Kramer-Dahl, A., Kwek, D., Ang, D., Shu, J., & Tan, C. (2009). *Communities of readers among teachers: Building Singaporean secondary english teachers' pedagogical capacities*. Singapore: Centre for Research in Pedagogy and Practice.

Amiel, T., & Reeves, T. C. (2008). Design-Based Research and Educational Technology: Rethinking Technology and the Research Agenda. *Educational Technology & Society*, *11*(4), 29–40. https://doi.org/10.1590/S0325-00752011000100012

Anderson, T., & Shattuck, J. (2012). Design-Based Research: A Decade of Progress in Education Research? *Educational Researcher*, *41*(1), 16–25. https://doi.org/10.3102/0013189X11428813

Angus, L. (2004). Globalization and educational change: bringing about the reshaping and re-norming of practice. *Journal of Education Policy*, *19*(1), 23–41. https://doi.org/10.1080/0268093042000182618

Baker, M., Bernard, F.-X., & Dumez-Féroc, I. (2012). Integrating computer-supported collaborative learning into the classroom: the anatomy of a failure. *Journal of Computer Assisted Learning*, *28*, 161–176. https://doi.org/10.1111/j.1365-2729.2011.00435.x

Barab, S. (2014). Methodological Toolkit for Engineering Change. In K. Sawyer (Ed.), *Handbook of the Learning Sciences* (2nd ed., pp. 151–170). Cambridge, MA: Cambridge University Press. https://doi.org/10.1017/CBO9781139519526.011

Barnes, K., Marateo, R., & Ferris, S. (2007). Teaching and learning with the net generation. *Innovate*, *3*(4). Retrieved from http://uruguayeduca.edu.uy/Userfiles/P0001/File/Teaching_and_Learning_with

_the_Net_Generation.pdf

Bates, M. (2002). Toward an integrated model of information seeking and searching. *New Review of Information Behaviour Research*, *3*, 1–15. Retrieved from https://pages.gseis.ucla.edu/faculty/bates/articles/info_SeekSearch-i-030329.html

Baumgart, N., & Halse, C. (1999). Approaches to Learning across Cultures: The role of assessment. *Assessment in Education: Principles, Policy & Practice*, *6*(3), 321–339. https://doi.org/10.1080/09695949992775

Beers, P. J., Boshuizen, H. P. A. (Els), Kirschner, P. A., & Gijselaers, W. H. (2005). Computer support for knowledge construction in collaborative learning environments. *Computers in Human Behavior*, *21*, 623–643. https://doi.org/10.1016/j.chb.2004.10.036

Belal, S. (2017). Participating in the International Baccalaureate Diploma Programme: Developing international mindedness and engagement with local communities. *Journal of Research in International Education*, *16*(1), 18–35. https://doi.org/10.1177/1475240917702789

Ben-David Kolikant, Y. (2010). Digital natives, better learners? Students' beliefs about how the Internet influenced their ability to learn. *Computers in Human Behavior*, *26*(6), 1384–1391. https://doi.org/10.1016/j.chb.2010.04.012

Ben-David Kolikant, Y. (2012). Using ICT for school purposes: Is there a student-school disconnect? *Computers and Education*, *59*(3), 907–914. https://doi.org/10.1016/j.compedu.2012.04.012

Bent, M. . (2009). *A peaceful partnership? A case study of three IB English A1 teachers' conceptions of peace education at an IB world school in Peru.* University of Toronto.

Biesenbach-Lucas, S. (2003). Asynchronous Discussion Groups in Teacher Training Classes: Perceptions of Native and Non-Native Students. *JALN*, *7*(3), 24–46. Retrieved from http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.119.3466&rep=rep1&type=pdf

Biggs, J. B. (1991). Approaches to Learning in Secondary and Tertiary Students in Hong Kong: Some Comparative Studies. *Educational Research Journal*, *6*, 27–39.

Biggs, J. B. (1996). Western misperceptions of the Confucian-heritage learning culture. In D. Watkins & J. B. Biggs (Eds.), *The Chinese Learner: Cultural Psychological and Contextual Influences* (pp. 45–67). Hong Kong: CERC & ACER.

Bonk, C. J., Kim, K., & Zeng, T. (2006). Future Directions of Blended Learning in Higher Education and Workplace Learning Settings. In C. J. Bonk & C. Graham (Eds.), *Handbook of blended learning: Global Perspectives, local designs* (pp. 550–567).

San Francisco, CA: Pfeiffer.

Brabazon, T. (2007). *The University of Google: Education in the (Post) Information Age*. Aldershot: Ashgate.

Brislin, R. W., Bochner, S., & Lonner, W. J. (Eds.). (1975). *Cross-cultural perspectives on learning*. Beverly Hills, CA: Sage Publications.

Brown, A. L. (1992). Design Experiments: Theoretical and Methodological Challenges in Creating Complex Interventions in Classroom Settings. *The Journal of the Learning Sciences*, *2*(2), 141–178.

Bruner, J. (1996). *The culture of education*. Cambridge, MA: Harvard University Press.

Bullock, K. (2011). International Baccalaureate learner profile: Literature review. Retrieved April 10, 2017, from http://www.ibo.org/globalassets/publications/ib-research/iblearnerprofileeng.pdf

Bunnell, T. (2008). The International Baccalaureate in England and Wales: the alternative paths for the future. *Curriculum Journal*, *19*(3), 151–160. https://doi.org/10.1080/09585170802357462

Bunnell, T. (2010). The International Baccalaureate and a framework for class consciousness: the potential outcomes of a "class-for-itself." *Discourse: Studies in the Cultural Politics of Education*, *31*(3), 351–362. https://doi.org/10.1080/01596301003786969

Bunnell, T. (2011). The International Baccalaureate and "growth scepticism": a "social limits" framework. *International Studies in Sociology of Education*, *21*(2), 161–176. https://doi.org/10.1080/09620214.2011.575103

Cause, L. (2011). "International-mindedness": a field of struggle, confusion and hope. *Global Journal of Human Social Science*, *11*(7), 34–40.

Chai, C. S., Koh, J. H. L., & Tsai, C.-C. (2013). A Review of Technological Pedagogical Content Knowledge. *Journal of Educational Technology & Society*, *16*(2), 31. https://doi.org/10.1111/j.1365-2729.2010.00372.x

Chan, S. (1999). The Chinese learner – a question of style. *Education & Training*, *41*(6/7), 294–305. https://doi.org/10.1108/00400919910285345

Chang, A. S. C., & Ho, W. K. (1992). Singapore students are rote learners: Fact or myth? In *Educational Research Association Conference* (pp. 24–26).

Chen, W. (2013). School Leadership in ICT Implementation: Perspectives from Singapore. *Asia-Pacific Education Researcher*, *22*(3), 301–311. https://doi.org/10.1007/s40299-012-0055-8

Cheng, M. H. M., & Wan, Z. H. (2016). Unpacking the paradox of Chinese science learners: insights from research into Asian Chinese school students' attitudes

towards learning science, science learning strategies, and scientific epistemological views. *Studies in Science Education*, *52*(1), 29–62. https://doi.org/10.1080/03057267.2015.1112471

Cheng, X. (2000). Asian students' reticence revisited. *System*, *28*, 435–446. https://doi.org/10.1016/S0346-251X(00)00015-4

Cheo, R., & Quah, E. (2005). Mothers, Maids and Tutors: An Empirical Evaluation of their Effect on Children's Academic Grades in Singapore. *Education Economics*, *13*(3), 269–285. https://doi.org/10.1080/09645290500073746

Chong, S. (2005). Cultures of Teaching, Learning and Examination: A perspective on the teaching of English in one Asian context. In *CRPP Conference: Redesigning Pedagogy: Research, Policy, Practice*. Singapore: CRPP Conference: Redesigning Pedagogy: Research, Policy, Practice.

Choy, M. (2013). The iTEaCH Implementation Model: Adopting a best-fit approach to implementing ICT in schools. *Educational Media*, *50*(4), 281–290. https://doi.org/10.1109/CICEM.2013.6820190

Clark, R., & Gieve, S. N. (2006). On the Discursive Construction of "The Chinese Learner." *Language, Culture and Curriculum*, *19*(1), 54–73. https://doi.org/10.1080/07908310608668754

Cobb, P., Confrey, J., Lehrer, R., Schauble, L., Cobb, P., Confrey, J., … Schauble, L. (2003). Design Experiments in Educational Research. *Educational Researcher*, *32*(1), 9–13.

Cobb, P., & Mcclain, K. (2001). An Approach for Supporting Teachers' Learning in Social Context. In F.-L. Lin & T. J. Cooney (Eds.), *Making Sense of Mathematics Teacher Education* (pp. 207–231). Dordrecht: Kluwer. https://doi.org/10.1007/978-94-010-0828-0_10

Cobb, P., Zhao, Q., & Dean, C. (2009). Conducting Design Experiments to Support Teachers' Learning: A Reflection From the Field. *Journal of the Learning Sciences*, *18*(2), 165–199. https://doi.org/10.1080/10508400902797933

Cohen, L., Manion, L., Morrison, K. R. B., & Wyse, D. (2010). *A guide to teaching practice* (Rev 5th). Abingdon, UK: Routledge.

Collins, A. (1992). Toward a design science of education. In E. Scanlon & T. O'Shea (Eds.), *New directions in educational technology* (pp. 15–22). Berlin: Springer-Verlag.

Collins, A., Joseph, D., & Bielaczyc, K. (2004). Design Research: Theoretical and Methodological Issues. *Journal of the Learning Sciences*, *13*(1), 15–42. https://doi.org/10.1207/s15327809jls1301

Collison, G., Elbaum, B., Haavind, S., & Tinker, R. (2000). Facilitating online learning:

Effective strategies for moderator. Madison, WI: Atwood Publishing.

Collison, G., Elbaum, B., Haavind, S., & Tinker, R. (2000). *Facilitating online learning: Effective strategies for moderator*. Madison, WI: Atwood Publishing.

Conner, J. O. (2008). From international schools to inner-city schools: the first principles of the International Baccalareate Diploma Program. *Teachers College Record*, *110*(2), 322–51.

Conner, J. O. (2008). From International Schools to Inner-City Schools: The First Principles of the International Baccalaureate Diploma Program. *Teachers College Record*, *110*(2), 322–51.

Corbett, H. D., & Rossman, G. B. (1989). Three Paths to Implementing Change: A Research Note. *Curriculum Inquiry, 19*(2), 163–190. https://doi.org/10.1007/sl0551-008-9974-y

Cortazzi, M., & Li, J. (1996). Cultures of learning: language classrooms in China. In H. Coleman (Ed.), *Society and the Language Classroom* (pp. 169–206). Cambridge: Cambridge University Press.

Crouch, M., & McKenzie, H. (2006). The logic of small samples in interview-based qualitative research. *Social Science Information*, *45*(4), 483–499. https://doi.org/10.1177/0539018406069584

Davie, S. (2015). 7 in 10 parents send their children for tuition: ST poll. Retrieved May 20, 2009, from http://www.straitstimes.com/singapore/education/7-in-10-parents-send-their-children-for-tuition-st-poll

Davy, I. (2011). *Learners without borders: A curriculum for global citizenship Introduction to IB position papers*.

Dewey, J. (1916). *Democracy and Education: An Introduction to the Philosophy of Education*. Harvard University.

Dillenbourg, P. (1999). What do you mean by “collaborative learning”? *Collaborative Learning Cognitive and Computational Approaches*, *1*(6), 1–15. https://doi.org/10.1.1.167.4896

Dillenbourg, P., Jarvela, S., & Fischer, F. (2009). The evolution of research on computers-supported collaborative learning: From design to orchestration. In I. Balacheff, S. Ludvigsen, T. de de Jong, A. Lazonder, & S. Barnes (Eds.), *Technology-Enhanced Learning: Principles and Products* (pp. 3–19). Netherlands: Springer.

Doherty, C. (2013). Making a point of difference: the glocalised ecology of the International Baccalaureate Diploma in Australian schools. *Globalisation, Societies and Education*, *11*(3), 379–397. https://doi.org/10.1080/14767724.2012.761809

Doherty, C., & Shield, P. (2012). Teachers' Work in Curricular Markets: Conditions of Design and Relations Between the International Baccalaureate Diploma and the Local Curriculum. *Curriculum Inquiry*, *42*(3), 414–441. https://doi.org/10.1111/j.1467-873X.2012.00596.x

Duque, R., Gómez-Pérezz, D., Nieto-Reyes, A., & Bravo, C. (2015). Analyzing collaboration and interaction in learning environments to form learner groups. *Computers in Human Behavior*, *47*, 42–49. https://doi.org/10.1016/j.chb.2014.07.012

Elliott, J. (1988). Educational research and outsider-insider relations. *International Journal of Qualitative Studies in Education*, *1*(2), 155–166. https://doi.org/10.1080/0951839880010204

Ertmer, P. A. (1999). Addressing first- and second-order barriers to change: Strategies for technology integration. *Educational Technology Research and Development*, *47*(4), 47–61. https://doi.org/10.1007/BF02299597

Fang, L. (2007). Perceiving the useful, enjoyable and effective: A case study of the e-learning experience of tertiary students in Singapore. *Educational Media International*, *44*(3), 237–253. https://doi.org/10.1080/09523980701491682

Fetterman, D. M. (1989). *Ethnography: Step by Step*. Newbury Park, CA: Sage Publications.

Flowerdew, J., & Miller, L. (1995). On the Notion of Culture in L2 Lectures. *TESOL Quarterly*, *29*(2), 345–373.

Fox, E. (1985). International Schools and the International Baccalaureate. *Harvard Educational Review*, *55*(1), 53–69.

Frand, J. L. (2000). The information age mindset: Changes in students and implications for higher education. *EDUCAUSE Review*, *35*(October 2000), 15–24. https://doi.org/ht tp: //www.educause.edu/apps /er /erm00/ar t icles005/ erm0051.pdf

Fullan, M. (1999). *The new meaning of educational change*. London: Cassell.

Fullan, M. (2013). *Stratosphere: Integrating technology, pedagogy, and change knowledge*. Toronto: Pearson.

Gan, A. (2009). Chinese students' adjustment to the International Baccalaureate Diploma Programme: Experiences of an Australian high school. *Journal of Research in International Education*, *8*(3), 283–304. https://doi.org/10.1177/1475240909345815

Garland, R. (1991). The mid-point on a rating scale: is it desirable? *Marketing Bulletin*, 3–6.

Garrison, D. R. (2006). Online collaboration principles. *Journal of Asynchronous*

*Learning Networks*, *10*, 25–34. https://doi.org/10.1017/CBO9781107415324.004

Garrison, D. R., Anderson, T., & Archer, W. (2001). Critical thinking, cognitive presence, and computer conferencing in distance education. *American Journal of Distance Education*, *15*(1), 7–23. https://doi.org/10.1080/08923640109527071

Garrison, D. R., & Kanuka, H. (2004). Blended learning: Uncovering its transformative potential in higher education. *Internet and Higher Education*, *7*(2), 95–105. https://doi.org/10.1016/j.iheduc.2004.02.001

Goh, C. T. (1997). Shaping our future: Thinking schools, learning nation. In *7th International Conference on Thinking*. Retrieved from https://www.moe.gov.sg/media/speeches/1997/020697.htm

Goodyear, P., & Ellis, R. A. (2008). University students' approaches to learning: rethinking the place of technology. *Distance Education*, *29*(2), 141–152. https://doi.org/10.1080/01587910802154947

Gopinathan, S. (2001). Globalisation, the state and education policy in Singapore. In *Education and political transition: Themes and experiences in East Asia* (pp. 21–36). Hong Kong: Comparative Education Research Centre (CERC), The University of Hong Kong, and Springer. Retrieved from http://www.fe.hku.hk/cerc/Publications/CERC-1.htm

Gopinathan, S., & Lee, M. H. (2011). Challenging and co-opting globalisation: Singapore's strategies in higher education. *Journal of Higher Education Policy and Management*, *33*(3), 287–299. https://doi.org/10.1080/1360080X.2011.565001

Graham, C. R. (2013). Emerging practice and research in blended learning. In M. . Moore (Ed.), *Handbook of distance education* (3rd ed., pp. 333–350). New York, NY: Routledge.

Gravemeijer, K., & Cobb, P. (2006). Design Research from a Learning Design Perspective. In J. V. . Akker, K. Gravemeijer, S. McKenney, & N. Nieveen (Eds.), *Educational design research* (pp. 45–85). New York, NY: Routledge.

Green, A. (1999). Education and globalization in Europe and East Asia: convergent and divergent trends. *Journal of Education Policy*, *14*(1), 55–71. https://doi.org/10.1080/026809399286495

Gress, C. L. Z., Fior, M., Hadwin, A. F., & Winne, P. H. (2010). Measurement and assessment in computer-supported collaborative learning. *Computers in Human Behavior*, *26*(5), 806–814. https://doi.org/10.1016/j.chb.2007.05.012

Griffiths, J. R., & Brophy, P. (2005). Student searching behaviour and the web: use of academic resources and google. *Library Trends*, *53*(4), 539–554.

https://doi.org/Article

Gros, B. (2001a). Instructional design for Computer-Supported Collaborative Learning in primary and secondary school. *Computers in Human Behavior*, *17*, 439–451. https://doi.org/10.1016/S0747-5632(01)00016-4

Gros, B. (2001b). Instructional design for Computer-Supported Collaborative Learning in primary and secondary school. *Computers in Human Behavior*, *17*, 439–451. https://doi.org/10.1016/S0747-5632(01)00016-4

Gurung, B., & Rutledge, D. (2014). Digital learners and the overlapping of their personal and educational digital engagement. *Computers and Education*, *77*, 91–100. https://doi.org/10.1016/j.compedu.2014.04.012

Guy, J., & Switzer, J. (2010). The migratory trends of International Baccalaureate Diploma students in Asia Pacific: going global. *Journal of the World Universities Forum*, *3*(5), 59–74. Retrieved from https://www.academia.edu/7674094/The_World_UNIVERSITIES_FORUM_The_Migratory_Trends_of_International_Baccalaureate_Diploma_Students_in_Asia_Pacific_Going_Global

Hara, N., Bonk, C. J. A. Y., & Angeli, C. (2000). Content analysis of online discussion in an applied educational psychology course. *Instructional Science*, *28*, 115–152.

Harris, J., Mishra, P., & Koehler, M. (2009). Teachers' Technological Pedagogical Content Knowledge and Learning Activity Types: Curriculum-based Technology Integration Reframed. *Journal of Research on Technology in Education*, *41*(4), 393–416. https://doi.org/10.1207/s15326985ep2803_7

Hayden, M. (2013). A review of curriculum in the UK: internationalising in a changing context. *Curriculum Journal*, *24*(1), 8–26. https://doi.org/10.1080/09585176.2012.744328

Hayden, M., & Wong, C. (1997). The International Baccalaureate: international education and cultural preservation. *Educational Studies*, *23*(3), 349–361. https://doi.org/10.1080/0305569970230302

Haywood, T. (2007). A Simple Typology of International-Mindedness and its Implications for Education. In M. Hayden, J. Levy, & J. Thompson (Eds.), *The SAGE Handbook of Research in International Education* (pp. 79–89). London: Sage Publications.

Heidi, Y.-J. T. M. N. (2015). Exploring the use of authentic learning strategies in designing blended learning environments. *Journal of Science & Technology Policy Management*, *6*(2), 127–142. https://doi.org/10.1108/09574090910954864

Hew, K. F., & Brush, T. (2007). Integrating technology into K-12 teaching and learning: Current knowledge gaps and recommendations for future research. *Educational*

*Technology Research and Development*, *55*(3), 223–252. https://doi.org/10.1007/s11423-006-9022-5

Ho, C. M. L., Nelson, M. E., & Müeller-Wittig, W. (2011). Design and implementation of a student-generated virtual museum in a language curriculum to enhance collaborative multimodal meaning-making. *Computers and Education*, *57*(1), 1083–1097. https://doi.org/10.1016/j.compedu.2010.12.003

Hogan, D. (2014). Why is Singapore's school system so successful, and is it a model for the west? Retrieved April 19, 2017, from https://theconversation.com/why-is-singapores-school-system-so-successful-and-is-it-a-model-for-the-west-22917

IBM Corp. (2013). IBM SPSS Statistics for Windows 22.0. Armonk, NY: IBM Corp.

ibo. (2011). *Language A: language and literature guide*. Cardiff: International Baccalaureate Organization. Retrieved from http://www.ibo.org

ibo. (2013a). IB Learner Profile. Retrieved July 10, 2015, from http://www.ibo.org/contentassets/fd82f70643ef4086b7d3f292cc214962/learner-profile-en.pdf

ibo. (2013b). Language A: language and literature. Retrieved from http://www.ibo.org/diploma/curriculum/group1/LanguageAlanguageandliterature.cfm

ibo. (2014). Mission and Strategy. Retrieved July 10, 2015, from http://www.ibo.org/mission/

ibo. (2015). *Approaches to teaching and learning in the Diploma Programme (pre-publication)*. Retrieved from http://www.ibo.org/globalassets/digital-tookit/flyers-and-artworks/approaches-to-teaching-learning-dp-en.pdf

ibo. (2017). Facts about IB programmes and schools. Retrieved July 6, 2017, from http://www.ibo.org/about-the-ib/facts-and-figures/

Jacobson, M. J., So, H.-J., Teo, T., Lee, J., Pathak, S., & Lossman, H. (2010). Epistemology and learning: Impact on pedagogical practices and technology use in Singapore schools. *Computers & Education*, *55*(4), 1694–1706. https://doi.org/10.1016/j.compedu.2010.07.014

Jin, L., & Cortazzi, M. (2006). Changing practices in Chinese cultures of learning. *Language, Culture and Curriculum*, *19*(1), 5–20. https://doi.org/10.1080/07908310608668751

Jones, J. F. (1999). From Silence to Talk: Cross-Cultural Ideas on Students Participation in Academic Group Discussion. *English for Specific Purposes*, *18*(3), 243–259. https://doi.org/10.1016/S0889-4906(97)00059-8

Jorgensen, D. (1989). *Participant observation: A methodology for human studies*. London: Sage.

Kanuka, H., & Anderson, T. (2007). Ethical Issues in Qualitative E-Learning Research. *International Journal of Qualitative Methods*, *6*(2), 1–14.

Keating, T., & Evans, E. (2001). Three computers in the back of the classroom: pre-service teachers' conceptions of technology integration. In *annual meeting of the American Educational Research Association*. Seattle, WA.

Kember, D. (2000). Misconceptions about the learning approaches, motivation and study practices of Asian students. *Higher Education*, *40*(1), 99–121. https://doi.org/10.1023/A:1004036826490

Kember, D., & Gow, L. (1991). A challenge to the anecdotal stereotype of the Asian student. *Studies in Higher Education*, *16*(2), 117–128. https://doi.org/10.1080/03075079112331382934

Kennedy, D. M., & Fox, B. (2013). "Digital natives": An Asian perspective for using learning technologies. *International Journal of Education and Development Using Information and Communication Technology*, *9*(1), 64–79.

Kennedy, G., Dalgarno, B., Gray, K., Judd, T., Waycott, J., Bennett, S., … A., C. (2007). The net generation are not big users of Web 2.0 technologies: Preliminary findings. In *ICT: Providing choices for learners and learning.* Singapore. Retrieved from http://www.ascilite.org.au/conferences/singapore07/procs/kennedy.pdf

Kennedy, G. E., & Judd, T. S. (2011). Beyond Google and the "satisficing" searching of digital natives. In M. Thomas (Ed.), *Deconstructing Digital Natives* (pp. 119–136). Routledge.

Kennedy, G. E., Judd, T. S., Churchward, A., Gray, K., & Krause, K. (2008). First year students' experiences with technology: Are they really digital natives? *Australasian Journal of Educational Technology*, *24*(1), 108–122. https://doi.org/10.1.1.85.9526

Kennedy, G., Judd, T., Dalgarno, B., & Waycott, J. (2010). Beyond natives and immigrants: Exploring types of net generation students. *Journal of Computer Assisted Learning*, *26*(5), 332–343. https://doi.org/10.1111/j.1365-2729.2010.00371.x

Kerr, B. (2007). Blended Learning: Clarifying the Construct. In *23rd Annual Conference on Distance Teaching & Learning* (pp. 1–5). University of Wisconsin. Retrieved from http://www.uwex.edu/disted/conference

Khamid, H. M. A. (2016). Schools looking to better harness technology to aid learning. Retrieved July 10, 2016, from http://www.channelnewsasia.com/news/singapore/schools-looking-to-better-harness-technology-to-aid-learning-8200446

Kirschner, P. A. (2008). Coercing shared knowledge in collaborative learning environments. *Computers in Human Behavior*, *24*, 403–420.

https://doi.org/10.1016/j.chb.2007.01.028

Koehler, M. J., & Mishra, P. (2009). What is Technological Pedagogical Content Knowledge (TPACK)? *Contemporary Issues in Technology and Teacher Education*, *9*(1), 60–70. https://doi.org/10.1016/j.compedu.2010.07.009

Koehler, M. J., Mishra, P., & Cain, W. (2013). What Is Technological Pedagogical Content Knowledge (TPACK)? *Journal of Education*, *193*(3), 13–19. https://doi.org/10.1016/j.compedu.2010.07.009

Koehler, M. J., Mishra, P., & Yahya, K. (2007). Tracing the development of teacher knowledge in a design seminar: Integrating content, pedagogy and technology. *Computers and Education*, *49*(3), 740–762. https://doi.org/10.1016/j.compedu.2005.11.012

Koh, A., & Chong, T. (2014). Education in the global city: the manufacturing of education in Singapore. *Discourse: Studies in the Cultural Politics of Education*, *35*(5), 625–636. https://doi.org/10.1080/01596306.2014.931112

Kubota, R. (1999a). Japanese Culture Constructed by Discourses: Implications for Applied Linguistics Research and ELT. *TESOL Quarterly*, *33*(1), 9–35. https://doi.org/10.2307/3588189

Kubota, R. (1999b). Japanese Culture Constructed by Discourses: Implications for Applied Linguistics Research and ELT. *TESOL Quarterly*, *33*(1), 9–35. https://doi.org/10.2307/3588189

Kumar, P. (2013). Bridging East and West educational divides in Singapore. *Comparative Education*, *49*(1), 72–87. https://doi.org/10.1080/03050068.2012.740221

Kumar, V. S., Gress, C. L. Z., Hadwin, A. F., & Winne, P. H. (2010). Assessing process in CSCL: An ontological approach. *Computers in Human Behavior*, *26*(5), 825–834. https://doi.org/10.1016/j.chb.2007.07.004

Kwang, K. (2017a). IDA, MDA to be restructured to capitalise on converging media and ICT landscape. Retrieved July 10, 2017, from http://www.channelnewsasia.com/news/singapore/ida-mda-to-be-restructured-to-capitalise-on-converging-media-and-8197024

Kwang, K. (2017b). IDA, MDA to be restructured to capitalise on converging media and ICT landscape. Retrieved July 10, 2016, from http://www.channelnewsasia.com/news/singapore/ida-mda-to-be-restructured-to-capitalise-on-converging-media-and-8197024

Lai, C., Shum, M. S. K., & Zhang, B. (2014). International mindedness in an Asian context: the case of the International Baccalaureate in Hong Kong. *Educational Research*, *56*(1), 77–96. https://doi.org/10.1080/00131881.2013.874159

Lai, M. Y., & Murray, S. (2012). Teaching with Procedural Variation: A Chinese Way of Promoting Deep Understanding of Mathematics. *International Journal for Mathematics Teaching & Learning*, 1–25. Retrieved from http://ezproxy.massey.ac.nz/login?url=http://search.ebscohost.com/login.aspx?direct=true&AuthType=ip,cookie,url,uid&db=eue&AN=79325217&site=ehost-live

Laurillard, D. (2012). *Teaching as a design science: Building pedagogical patterns for learning and technology*. Abingdon, UK: Routledge.

Lave, J., & Wenger, E. (1998). *Situated learning: Legitimate peripheral participation. Learning in doing: Social, cognitive, and computational perspectives*. New York, NY: Cambridge University Press.

Lee, S. S., Hung, D., & Teh, L. W. (2016). An ecological view of conceptualising change in the Singapore Education System. *Educational Research for Policy and Practice*, *15*(1), 55–70. https://doi.org/10.1007/s10671-015-9176-1

Lewis, C., Ketter, J., & Fabos, B. (2001). Reading race in a rural context. *Qualitative Studies in Education*, *14*(3), 317–350. https://doi.org/10.1080/09518390110029454

Li, J. (2002). Learning models in different cultures. *New Directions for Child & Adolescent Development*, *2002*(96), 45–64. Retrieved from http://ezproxy.usherbrooke.ca/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=9677886&lang=fr&site=ehost-live

Li, N. (2012). Approaches to learning: Literature review, 1–45. Retrieved from http://www.ibo.org/globalassets/publications/ib-research/approachestolearningeng.pdf

Li, Y., & Ranieri, M. (2010). Are “digital natives” really digitally competent?—A study on Chinese teenagers. *British Journal of Educational Technology*, *41*(6), 1029–1042. https://doi.org/10.1111/j.1467-8535.2009.01053.x

Lim, C. P. (2006). Effective integration of ICT in Singapore schools: pedagogical and policy implications. *Educational Technology Research and Development*, *55*(1), 83–116. https://doi.org/10.1007/s11423-006-9025-2

Lim, D. H. (2004). Cross Cultural Differences in Online Learning Motivation. *Educational Media International*, *41*(2), 163–175. https://doi.org/10.1080/09523980410001685784

Lineham, R. (2013). Is the International Baccalaureate Diploma Programme effective at delivering the International Baccalaureate mission statement? *Journal of Research in International Education*, *12*(3), 259–282. https://doi.org/10.1177/1475240913509765

Lineham, R. (2013). Is the International Baccalaureate Diploma Programme effective

at delivering the International Baccalaureate mission statement? *Journal of Research in International Education*, *12*(3), 259 –282. https://doi.org/10.1177/1475240913509765

Littlewood, W. (1999). Defining and developing autonomy in East Asian contexts. *Applied Linguistics*, *20*(1), 71–94. https://doi.org/10.1093/applin/20.1.71

Liu, N., & Littlewood, W. (1997). Why do many students appear reluctant to participate in classroom learning discourse? *System*, *25*(3), 371–384. https://doi.org/http://dx.doi.org/10.1016/S0346-251X(97)00029-8

Loh, C. E. (2012). Global and National Imaginings: Deparochialising the IBDP English A1 Curriculum. *Changing English*, *19*(2), 221–235. https://doi.org/10.1080/1358684X.2012.680764

Lowyck, J., & Po, J. (2001). Design of collaborative learning environments. *Computers and Education*, *17*, 507–516.

Luke, A. (2005). *CRPP Intervention Plan: Moving from the Core to pedagogic change*. Singapore: Centre for Research in Pedagogy and Practice.

Luke, A., Freebody, P., Lau, S., & Gopinathan, S. (2005). Towards research-based innovation and reform: Singapore schooling in transition. *Asia Pacific Journal of Education*, *25*(1), 5–28.

Margaryan, A., Littlejohn, A., & Vojt, G. (2011). Are digital natives a myth or reality? University students' use of digital technologies. *Computers & Education*, *56*(2), 429–440. https://doi.org/10.1016/j.compedu.2010.09.004

Marginson, S. (1999). After globalization: emerging politics of education. *Journal of Education Policy*, *14*(1), 19–31. https://doi.org/10.1080/026809399286477

Marginson, S. (2011). Higher education in East Asia and Singapore: rise of the Confucian Model. *Higher Education*, *61*(5), 587–611. https://doi.org/10.1007/s10734-010-9384-9

Marton, F., & Booth, S. (1997). *Learning and Awareness*. New Jersey: Lawrence Earlbaum.

Marton, F., Dall' Alba, G., & Tse, L. K. (1993). Memorizing and understanding: The keys to the paradox? In D. Watkins & J. Biggs (Eds.), *The Chinese learner: Cultural, psychological and contextual influences*. Melbourne, Australia: ACER.

Marton, F., & Säljö, R. (2005). Approaches to Learning. *The Experience of Learning: Implications for Teaching and Studying in Hgher Education. 3rd (Internet) Edition*, 39–58.

Marton, F., Watkins, D., & Tang, C. (1997). Discontinuities and continuities in the experience of learning: An interview study of high-school students in Hong Kong. *Learning and Instruction*, *7*(I), 21–48. https://doi.org/10.1016/S0959-

4752(96)00009-6

Marton, F., Wen, Q., & Wong, K. C. (2005). “Read a hundred times and the meaning will appear...” Changes in Chinese University students’ views of the temporal structure of learning. *Higher Education*, *49*, 291–318. https://doi.org/10.1007/s10734-004-6667-z

Mathias, J., Bruce, M., & Newton, D. P. (2013). Challenging the Western stereotype: Do Chinese international foundation students learn by rote? *Research in Post-Compulsory Education*, *18*(3), 221–238. https://doi.org/10.1080/13596748.2013.819257

McGee, P., & Reis, a. (2012). Blended course design: A synthesis of best practices. *Journal of Asynchronous Learning Networks*, *16*(4), 7–22.

McKenney, S., Nieveen, N., & Akker, J. van den. (2006). Design Research from a Curriculum Perspective. In J. V. . Akker, K. Gravemeijer, S. McKenney, & N. Nieveen (Eds.), *Educational design research* (pp. 110–143). New York, NY: Routledge.

McNeely, B. (2005). Using technology as a learning tool, not just a cool new thing. In D. Oblinger & J. Oblinger (Eds.), *Educating the Net generation* (p. 4.1-4.10). Boulder, CO: Educause. Retrieved from www.educause.edu/educatingthenetgen

McWilliam, E. (2009). Teaching for creativity: from sage to guide to meddler. *Asia Pacific Journal of Education*, *29*(3), 281–293. https://doi.org/10.1080/02188790903092787

Medina, R. D., Gómez-pérez, D., & Nieto-reyes, A. (2013). A method to form learners groups in computer-supported collaborative learning systems. In *ACM International Conference Proceeding Series* (pp. 261–266).

Menkhoff, T., Thang, T. Y., & Wong, Y. K. (2007). Evaluating the Blending of an E-Learning Module into a Knowledge Management Course: A Case Study from the Singapore Management University (SMU). In *IADIS International Conference e-Learning* (p. 12). Retrieved from http://ink.library.smu.edu.sg/lkcsb_research/645

Merriam, S. B. (1998). *Qualitative research and case study applications in education*. San Francisco, CA: Jossey-Bass Publishers.

Miles, M. B., & Huberman, A. M. (1994). *Qualitative Data Analysis: An Expanded Sourcebook, 2nd ed.* (2nd ed.). Thousand Oaks, CA: Sage.

Mishra, P., & Koehler, M. J. (2006a). Technological pedagogical content knowledge: A framework for teacher knowledge. *Teachers College Record*, *108*(6), 1017–1054. https://doi.org/10.1111/j.1467-9620.2006.00684.x

Mishra, P., & Koehler, M. J. (2006b). The Technological Pedagogical Content Knowledge Framework for Teachers and Teacher Educators. *ICT iItegrated Teacher Education: A Resource Book*, 2–7.

MOE. (2008). MOE Launches Third Masterplan for ICT in Education. Retrieved from http://www.moe.gov.sg/media/press/2008/08/moe-launches-third-masterplan.php

MOE. (2010, April 1). Information Sheet on 21st Century Competencies (Press Release). Singapore. Retrieved from http://www.moe.gov.sg/media/press/2014/04/information-sheet-on-21st-century.php

MOE. (2014). Better Ways, Better Ideas, Better Tools To Support Teachers And Schools. Retrieved July 27, 2015, from http://www.moe.gov.sg/media/press/2014/09/better-ways-better-ideas-better-tools-to-support-teachers-and-schools.php

Monteiro, E., & Morrison, K. (2014). Challenges for collaborative blended learning in undergraduate students. *Educational Research and Evaluation*, *20*(7–8), 564–591. https://doi.org/10.1080/13803611.2014.997126

Morgan, D. L. (1988). *Focus groups the qualitative research*. Beverly Hills, CA: Sage Publications.

Morgan, D. L. (1996). Focus Groups. *Annual Review of Sociology*, *22*, 129–152.

Moskal, P., Dziuban, C., & Hartman, J. (2013). Blended learning: A dangerous idea? *Internet and Higher Education*, *18*, 15–23. https://doi.org/10.1016/j.iheduc.2012.12.001

Neumann, C. (2016). Teaching Digital Natives: Promoting Information Literacy and Addressing Instructional Challenges. *Reading Improvement*, *53*(3), 101–106.

Ng, P. T. (2007). Quality assurance in the Singapore education system in an era of diversity and innovation. *Educational Research for Policy and Practice*, *6*(3), 235–247. https://doi.org/10.1007/s10671-007-9018-x

Ng, P. T. (2010). The evolution and nature of school accountability in the Singapore education system. *Educational Assessment, Evaluation and Accountability*, *22*(4), 275–292. https://doi.org/10.1007/s11092-010-9105-z

Ng, W. (2012). Can we teach digital natives digital literacy? *Computers and Education*, *59*(3), 1065–1078. https://doi.org/10.1016/j.compedu.2012.04.016

Nirmala, M. (2013, October 30). Tuition can worsen existing inequality. *Singapolitics*. Retrieved from http://www.singapolitics.sg/views/?tuition-can-worsen-existing-inequality?

Norberg, A., Dziuban, C. D., & Moskal, P. D. (2011). A time-based blended learning

model. *On the Horizon*, *19*(3), 207–216.

Oblinger, D., & Oblinger, J. (2005). Is It Age or IT: First Steps Toward Understanding the Net Generation. In D. Oblinger & J. Oblinger (Eds.), *Educating the Net Generation* (p. 2.1-2.20). Boulder, CO: EDUCASE. https://doi.org/Article

Oliver, M., & Trigwell, K. (2005). Can "blended learning" be redeemed? *E-Learning*, *2*(1), 17–26. https://doi.org/10.2304/elea.2005.2.1.2

Ong, J. (2016). Behind Singapore's success in the IB: More tuition? Retrieved July 10, 2017, from http://www.channelnewsasia.com/news/singapore/behind-singapore-s-success-in-the-ib-more-tuition-8000894

Ow, A., & Ho, W. K. (1993, September). Teachers' views of English language teaching. Singapore: 7th Educational Research Association Conference on Education and Environment, Singapore.

Parker, G., Cai, Y., Tan, S., Dear, K., Henderson, A. S., Poh, G. T., & Kwee, G. C. (2003). Examination stress in Singapore primary schoolchildren: How compliance by subjects can impact on study results. *Acta Psychiatr Scand*, *108*, 239–243. https://doi.org/10.1034/j.1600-0447.2003.00163.x

Paul, P. V. (2013). The Digital Generation: The Good, the Bad, and the Ugly. *American Annals of the Deaf*, *157*(5), 407–411.

Philip, D. (2005). The Knowledge Building Paradigm: A Model of Learning for Net Generation Students. *Innovate: Journal of Online Education*, *3*(5).

Philomin, L. E. (2015). Tuition culture has to go, say MPs. Retrieved August 15, 2016, from http://www.todayonline.com/singapore/tuition-culture-has-go-say-mps

Poonoosamy, M. (2010). The International Baccalaureate Diploma Programme in post-colonial Mauritius: reaffirming local identities and knowledges. *Asia Pacific Journal of Education*, *30*(1), 15–30. https://doi.org/10.1080/02188790903503569

Prensky, M. (2001a). *Digital game-based learning*. New York, NY: McGraw Hill.

Prensky, M. (2001b). Digital Natives, Digital Immigrants. *From On the Horizon*, *9*(5), 1–6. https://doi.org/10.1108/10748120110424816

Prensky, M. (2006). Listen to the Natives. *Learning in the Digital Age*, *64*(4), 8–13. https://doi.org/10.1177/0956474806067746

Prensky, M. (2008). Young minds, fast times. Retrieved July 29, 2015, from www.%0Dedutopia.org/ikid-digital-learner-technology-2008

Prensky, M. (2009). H. Sapiens Digital: From Digital Immigrants and Digital Natives to Digital Wisdom Digital Wisdom. *Innovate*, *5*(3), 1–9. https://doi.org/www.innovateonline.info/index.php?view=article&id=705

Purdie, N., & Hattie, J. (2002). Assessing students' conceptions of learning. *Australian Journal of Educational & Developmental Psychology*, *2*, 17–32.

Rao, Z. (2002). Bridging the Gap Between Teaching and Learning Styles in East Asian Contexts. *TESOL Journal*, *11*, 5–11.

Reeves, T. (2006). Design research from a technology perspective. In J. V. . Akker, K. Gravemeijer, S. McKenney, & N. Nieveen (Eds.), *Educational Design Research* (pp. 52–66). New York, NY: Routledge.

Resnik, J. (2008). The construction of the global worker through international education. In *The Production of Educational Knowledge in the Global Era* (pp. 147–157). Rotterdam: Sense Publishers.

Resnik, J. (2009). Multicultural Education – Good for Business But Not for the State? the IB Curriculum and Global Capitalism. *British Journal of Educational Studies*, *57*(3), 217–244. https://doi.org/10.1111/j.1467-8527.2009.00440.x

Rizvi, F., Acquaro, D., Quay, J., Sallis, R., Savage, G., & Sobhani, N. (2014). *IB learner profile booklet: A Comparative Study of Implementation, Adaption and Outcomes in India, Australia and Hong Kong*. *ibo.org*. Retrieved from www.ibo.org/globalassets/publications/ib-research/dp/lpin3countriesreportfinal.pdf

Ross, B., & Gage, K. (2006). Global perspectives on blended learning: Insight from WebCT and our customers in higher education. In C. J. Bonk & C. R. Graham (Eds.), *Handbook of blended learning: Global perspectives, local designs* (pp. 155–168). San Francisco, CA: Pfeiffer Publishing.

Ryan, J. (2016). "Asian" Learners or "Internationalised" Learners? Taking Advantage of International Cultural Academic Flows. *East Asia*, *33*(1), 9–24. https://doi.org/10.1007/s12140-015-9246-2

Sadler-Smith, E., & Tsang, F. (1998). A comparative study of approaches to studying in Hong Kong and the United Kingdom. *British Journal of Educational Psychology*, *68*, 81–93. https://doi.org/10.1111/j.2044-8279.1998.tb01276.x

Šafranj, J. (2013). Using Information Technology in English Language Learning Procedure: Blended Learning. *Procedia - Social and Behavioral Sciences*, *83*, 514–521. https://doi.org/10.1016/j.sbspro.2013.06.099

Schellens, T., & Valcke, M. (2006). Fostering knowledge construction in university students through asynchronous discussion groups. *Computers & Education*, *46*(4), 349–370. https://doi.org/10.1016/j.compedu.2004.07.010

Schneider, B., & Lee, Y. (1990). A Model for Academic Success: The School and Home Environment of East Asian Students. *Anthropology & Education Quarterly*, *21*(4), 358–377.

Seife, C. (2000). *Zero: The biography of a dangerous idea.* New York, NY: Penguin Books.

Sharpe, R., Benfield, G., Roberts, G., & Francis, R. (2006). The undergraduate experience of blended e-learning: A review of UK literature and practice. *The Higher Education Academy*, (October), 1–103. Retrieved from http://www.heacademy.ac.uk/resources/detail/Teachingandresearch/Undergraduate_Experience

Siau, M. E. (2013, September 17). MPs call for closer look at private tuition industry. *Today*. Retrieved from http://www.todayonline.com/singapore/mps-call-closer-look-private-tuition-industry-0

Silverman, D. (2006). *Interpreting qualitative data: methods for analyzing talk, text, and interaction*. Thousand Oaks, CA: Sage.

Sinha, S., Rogat, T. K., Adams-Wiggins, K. R., & Hmelo-Silver, C. E. (2015). Collaborative group engagement in a computer-supported inquiry learning environment. *International Journal of Computer-Supported Collaborative Learning*, *10*, 273–307. https://doi.org/10.1007/s11412-015-9218-y

Smith, L. T. (2005). On tricky ground: researching the native in the age of uncertainty. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of Qualitative Research* (pp. 85–107). Thousand Oaks, CA: Sage Publications.

Smith, R. (2000). It doesn't count because it's subjective! (Re)conceptualising the qualitative researcher role as validity embraces subjectivity. In P. Willis, R. Smith, & E. Collins (Eds.), *Being, seeking, telling: Expressive approaches to qualitative adult education research* (pp. 132–159). Flaxton, Queensland: Post Pressed.

So, H.-J. (2009). When groups decide to use asynchronous online discussions: Collaborative learning and social presence under a voluntary participation structure. *Journal of Computer Assisted Learning*, *25*(2), 143–160. https://doi.org/10.1111/j.1365-2729.2008.00293.x

So, H.-J., & Bonk, C. J. (2010). Examining the Roles of Blended Learning Approaches in Computer- Supported Collaborative Learning (CSCL) Environments: A Delphi Study. *Educational Technology & Society*, *13*(3), 189–200.

So, H.-J., Choi, H., Lim, W. Y., & Xiong, Y. (2012). Little experience with ICT: Are they really the Net Generation student-teachers? *Computers and Education*, *59*(4), 1234–1245. https://doi.org/10.1016/j.compedu.2012.05.008

So, H.-J., & Kim, B. (2009). Learning about problem based learning: Student teachers integrating technology, pedagogy and content knowledge. *Australasian Journal of Educational Technology*, *25*(1), 101–116. https://doi.org/10.1080/13502930802689012

Šorgo, A., Bartol, T., Dolničar, D., & Boh Podgornik, B. (2017). Attributes of digital natives as predictors of information literacy in higher education. *British Journal of Educational Technology*, *48*(3), 749–767. https://doi.org/10.1111/bjet.12451

Spradley, J. P. (1980). *Participant Observation*. New York, Holt: Rinehart and Winston.

Spradley, J. P. (2016). *Participant Observation*. Long Grove, IL: Waveland Press.

Stahl, G. (2017). Group practices: a new way of viewing CSCL. *Intern. J. Comput.-Support. Collab. Learn*, *12*, 113–126. https://doi.org/10.1007/s11412-017-9251-0

Starr, L. J. (2009). A Critique of the International Baccalaureate Learner Profile As A Curricular Document: Context, Hegemony, Hermeneutics and the Four Rs. *Yonsei Journal of International Studies*, *2*(2), 115–124.

Stigler, J. W., & Stevenson, H. W. (1991). How Asian Teachers Polish Each Lesson to Perfection. *American Educator*, *Spring*, 12–47.

Strauss, A., & Corbin, J. (1998). *Basics of qualitative research: Techniques and procedures for developing grounded theory*. Thousand Oaks, CA: Sage.

Strother, J. (2003). Shaping blended learning pedagogy for East Asian learning styles. In *IEEE International Professional Communication Conference* (pp. 353–357). Orlando, Florida. https://doi.org/10.1109/IPCC.2003.1245513

Svinicki, M. (2017). Digital Natives: What Are They Learning, If Anything? *National Teaching & Learning Forum*, *26*(3), 11–12. https://doi.org/10.1111/bjet.12451.CONTACT

Tamatea, L. (2008). A practical and reflexive liberal-humanist approach to international mindedness in international schools: Case studies from Malaysia and Brunei. *Journal of Research in International Education*, *7*(1), 55–76. https://doi.org/10.1177/1475240907086888

Tan, A.-G. (2001). Elementary school teachers' perception of desirable learning activities: a Singaporean perspective. *Educational Research*, *43*(1), 47–61. https://doi.org/10.1080/00131880110040959

Tan, C. (2008). Globalisation, the Singapore state and educational reforms: towards performativity. *Education, Knowledge and Economy*, *2*(2), 111–120. https://doi.org/10.1080/17496890802223619

Tan, C. (2015). Beyond Rote-Memorisation: Confucius' Concept of Thinking. *Educational Philosophy and Theory*, *47*(5), 428–439. https://doi.org/10.1080/00131857.2013.879693

Tan, C., & Ng, P. T. (2007). Dynamics of change: decentralised centralism of education in Singapore. *Journal of Educational Change*, *8*(2), 155–168.

https://doi.org/10.1007/s10833-006-9016-4

Tan, J. (1993). Independent schools in Singapore: Implications for social and educational inequalities. *International Journal of Educational Development*, *13*(3), 239–251. https://doi.org/10.1016/0738-0593(93)90032-U

Tan, S. C., Chai, C. S., Lee, C. B., Teo, K. G. T., Chen, W., Koh, J. H. L., … Cheah, H. M. (2010). *Evaluation of Implementation of the IT Masterplan 3 and its Impact on Singapore Schools: Instrumentation and Baseline Study*. *Research Brief (Vol. 11–001)*. https://doi.org/10.1016/S2213-8587(14)70039-7

Tan, T. (2014, November 9). $1 billion spent on tuition in one year. *The Straits Times*. Singapore. Retrieved from http://www.straitstimes.com/premium/news/story/1-billion-spent-tuition-one-year-20141109

Tan, W. K., Macdonald, D., & Rossi, T. (2009). Educational action research in Singapore: to prove or improve? *Asia Pacific Journal of Education*, *29*(3), 357–371. https://doi.org/10.1080/02188790903100333

Tapscott, D. (1998). *Growing up digital. The rise of the net generation*. New York, NY: McGraw Hill.

Tapscott, D. (2009). *Grown up digital: How the net generation is changing your world*. New York, NY: McGraw Hill.

Tarc, P. (2009). *Global Dreams, Enduring Tensions: International Baccalaureate in a Changing World*. New York, NY: Peter Lang.

Tavakol, M., & Dennick, R. (2010). Are Asian international medical students just rote learners? *Advances in Health Sciences Education*, *15*(3), 369–377. https://doi.org/10.1007/s10459-009-9203-1

Teng, A. (2016). Over half of International Baccalaureate top scorers from Singapore. Retrieved January 5, 2016, from http://www.straitstimes.com/singapore/education/over-half-of-international-baccalaureate-top-scorers-from-singapore

Tham, K., & Tham, C. K. (2011). Blended Learning – A Focus Study on Asia. *IJCSI International Journal of Computer Science*, *8*(2), 136–142.

Thang, S. M., Nambiar, R. M. K., Wong, F. F., Mohd Jaafar, N., & Amir, Z. (2015). A Clamour for More Technology in Universities: What Does an Investigation into the ICT Use and Learning Styles of Malaysian “Digital Natives” Tell Us? *Asia-Pacific Education Researcher*, *24*(2), 353–361. https://doi.org/10.1007/s40299-014-0185-2

Thompson, P. (2013). The digital natives as learners: Technology use patterns and approaches to learning. *Computers and Education*, *65*, 12–33.

https://doi.org/10.1016/j.compedu.2012.12.022

Thompson, P. (2015). How digital native learners describe themselves. *Education and Information Technologies*, *20*, 467–484. https://doi.org/10.1007/s10639-013-9295-3

Varma, A. (2016). More primary and secondary school students are getting private tuition years in advance of their grade in school. Retrieved July 10, 2017, from http://www.straitstimes.com/lifestyle/more-primary-and-secondary-school-students-are-getting-private-tuition-years-in-advance-of

Vesisenaho, M., Valtonen, T., Kukkonen, J., Havu-Nuutinen, S., Hartikainen, A., & Karkkainen, S. (2010). Blended learning with everyday technologies to activate students' collaborative learning. *Science Education International*, *21*(4), 272–283.

Vidovich, L., & O'Donoghue, T. (2003). Global–local dynamics of curriculum policy development: a case-study from Singapore. *Curriculum Journal*, *14*(3), 351–370. https://doi.org/10.1080/0958517032000137658

Vidovich, L., & Yap, M. S. (2008). Global-Local Dynamics in Expanding School Choice in Singapore. In M. Forsey, S. Davies, & G. Walford (Eds.), *The Globalisation of School Choice?* (pp. 209–230). Oxford: Symposium Books.

Vygotsky, L. (1978). *Mind in Society*. London: Harvard University Press.

Wachob, P. (2000). The Chinese learner: Cultural orientations for language learning. *Change: Monograph 2000*. Retrieved from http://shura.shu.ac.uk/4846/

Wang, S.-K., Hsu, H.-Y., Campbell, T., Coster, D. C., & Longhurst, M. (2014). An investigation of middle school science teachers and students use of technology inside and outside of classrooms: considering whether digital natives are more technology savvy than their teachers. *Educational Technology Research and Development*, *62*, 637–662. https://doi.org/10.1007/s11423-014-9355-4

Wang, Y., & Chen, D. V. (2011). Overcoming the Dilemma of Teacher Presence in Student-Centered Online Discussions. *Journal of Educational Multimedia and Hypermedia*, *20*(4), 267–280.

Watkins, D., & Biggs, J. B. (2001). The paradox of the Chinese learner and beyond. In A. Watkins & J. B. Biggs (Eds.), *Teaching the Chinese learner: Psychological and pedagogical perspectives*. Melbourne, Australia: ACER.

Watkins, D., & Ismail, M. (1994). Is the Asian Learner a Rote Learner? A Malaysian Perspective. *Contemporary Educational Psychology*, *19*, 483–488.

Watkins, D., Regmi, M., & Astilla, E. (1991). The-Asian-learner-as-a-rote-learner stereotype: Myth or reality? *Educational Psychology*, *11*, 21–34.

Waycott, J., Bennett, S., Kennedy, G., Dalgarno, B., & Gray, K. (2010). Digital divides?

Student and staff perceptions of information and communication technologies. *Computers and Education*, *54*(4), 1202–1211. https://doi.org/10.1016/j.compedu.2009.11.006

Wenger, E. (1999). Learning as social participation. *Knowledge Management Review*, *1*(6), 30–33.

Wenger, E. (2006). Communities of practice: A brief introduction [Electronic version].

Windham, C. (2005). Father Google and Mother IM: Confessions of a Net Gen Learner. *Educause Review*, *40*(5), 42–59. Retrieved from http://net.educause.edu/ir/library/pdf/ERM0552.pdf

Wong, K., & Wen, Q. (2001). The impact of university education on conceptions of learning: A Chinese study. *International Education Journal, 2*, 138–147.

Wright, E., & Lee, M. (2014a). Developing skills for youth in the 21st century: The role of elite International Baccalaureate Diploma Programme schools in China. *International Review of Education*, *60*(2), 199–216. https://doi.org/10.1007/s11159-014-9404-6

Wright, E., & Lee, M. (2014b). Elite International Baccalaureate Diploma Programme Schools and Inter-cultural Understanding in China. *British Journal of Educational Studies*, *62*(2), 149–169. https://doi.org/10.1080/00071005.2014.924615

Wu, D., & Hiltz, S. R. (2004). Predicting Learning from Asynchronous Online Discussions. *JALN*, *8*(2), 139–152. Retrieved from http://panet.andover.edu/bbcswebdav/institution/TAT/Documentation/BB/Courses/HelpfulDiscussionInfo.pdf

Yang, C. (2016, February 8). More schools tap tech tools for learning. *The Straits Times*. Retrieved from http://www.straitstimes.com/singapore/education/more-schools-tap-tech-tools-for-learning

Yang, C. (2017, August 16). Portal for students to learn anywhere, any time, to be rolled out to all schools from next year. *The Straits Times*. Singapore. Retrieved from http://www.straitstimes.com/singapore/portal-for-students-to-learn-anywhere-anytime-to-be-rolled-out-to-all-schools-from-next

Yang, Y. T. C., Chuang, Y. C., Li, L. Y., & Tseng, S. S. (2013). A blended learning environment for individualized English listening and speaking integrating critical thinking. *Computers and Education*, *63*, 285–305. https://doi.org/10.1016/j.compedu.2012.12.012

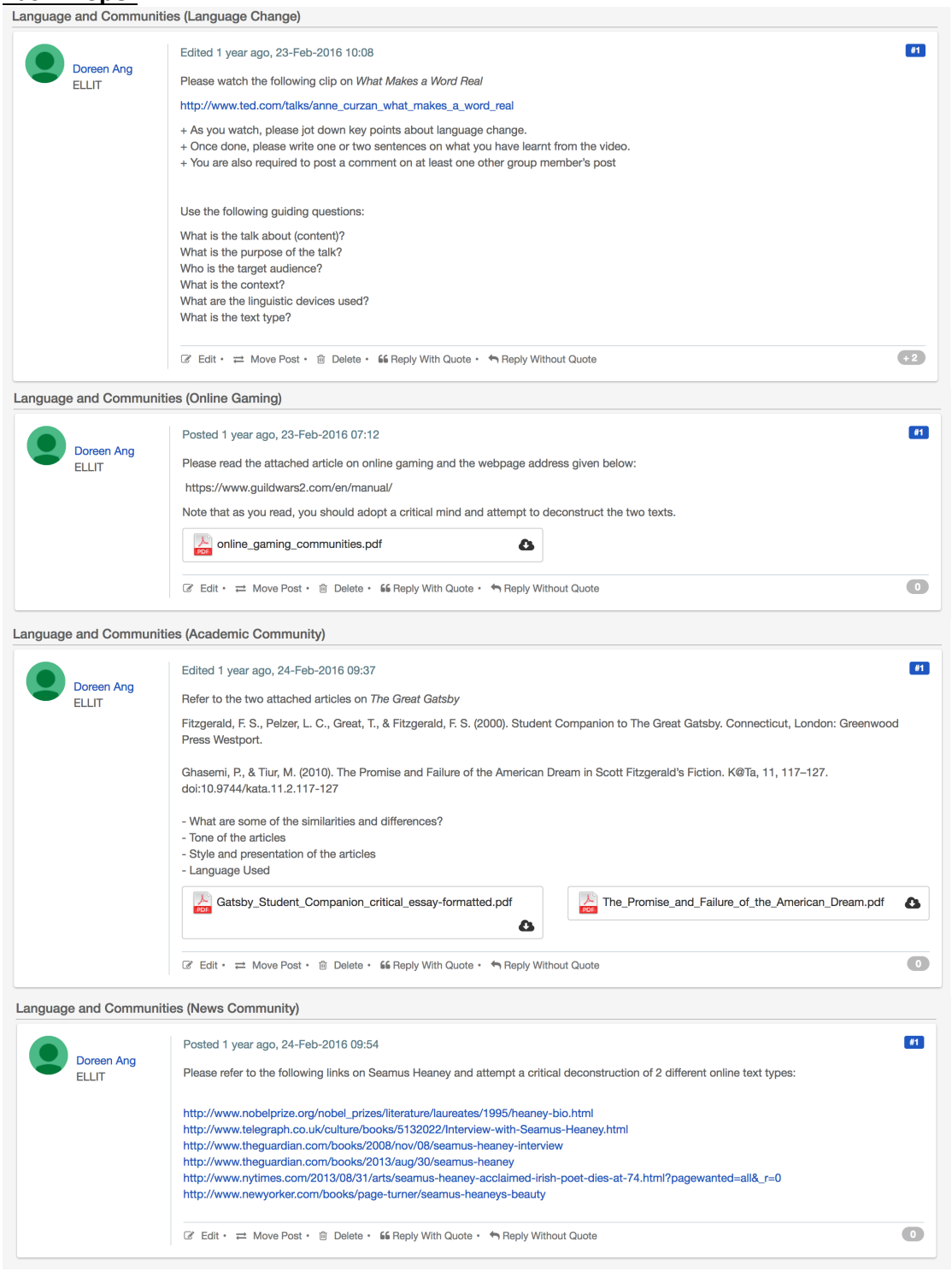
Yates, C., Partridge, H., & Bruce, C. (2012). Exploring information experiences through phenomenography. *Library and Information Research*, *36*(112), 96–119. Retrieved from http://www.lirgjournal.org.uk/lir/ojs/index.php/lir/index

Yin, R. K. (2003). *Case study research design and methods* (3rd ed.). Thousand Oaks, CA: Sage.

## Appendix One: Discussion Question for Forum Boards

## Date: Term 1, Week 7-8

## Task Proper



Language and Communities (Language Change)

Doreen Ang
ELLIT

Edited 1 year ago, 23-Feb-2016 10:08 #1

Please watch the following clip on *What Makes a Word Real*

http://www.ted.com/talks/anne_curzan_what_makes_a_word_real

+ As you watch, please jot down key points about language change.
+ Once done, please write one or two sentences on what you have learnt from the video.
+ You are also required to post a comment on at least one other group member's post

Use the following guiding questions:

What is the talk about (content)?
What is the purpose of the talk?
Who is the target audience?
What is the context?
What are the linguistic devices used?
What is the text type?

Edit • Move Post • Delete • Reply With Quote • Reply Without Quote +2

Language and Communities (Online Gaming)

Doreen Ang
ELLIT

Posted 1 year ago, 23-Feb-2016 07:12 #1

Please read the attached article on online gaming and the webpage address given below:

https://www.guildwars2.com/en/manual/

Note that as you read, you should adopt a critical mind and attempt to deconstruct the two texts.

online_gaming_communities.pdf

Edit • Move Post • Delete • Reply With Quote • Reply Without Quote 0

Language and Communities (Academic Community)

Doreen Ang
ELLIT

Edited 1 year ago, 24-Feb-2016 09:37 #1

Refer to the two attached articles on *The Great Gatsby*

Fitzgerald, F. S., Pelzer, L. C., Great, T., & Fitzgerald, F. S. (2000). Student Companion to The Great Gatsby. Connecticut, London: Greenwood Press Westport.

Ghasemi, P., & Tiur, M. (2010). The Promise and Failure of the American Dream in Scott Fitzgerald's Fiction. K@Ta, 11, 117–127. doi:10.9744/kata.11.2.117-127

- What are some of the similarities and differences?
- Tone of the articles
- Style and presentation of the articles
- Language Used

Gatsby_Student_Companion_critical_essay-formatted.pdf

The_Promise_and_Failure_of_the_American_Dream.pdf

Edit • Move Post • Delete • Reply With Quote • Reply Without Quote 0

Language and Communities (News Community)

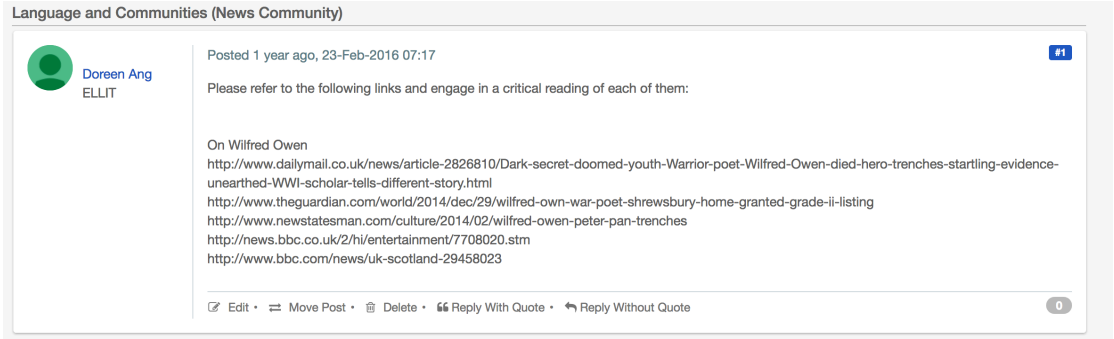
Doreen Ang
ELLIT

Posted 1 year ago, 24-Feb-2016 09:54 #1

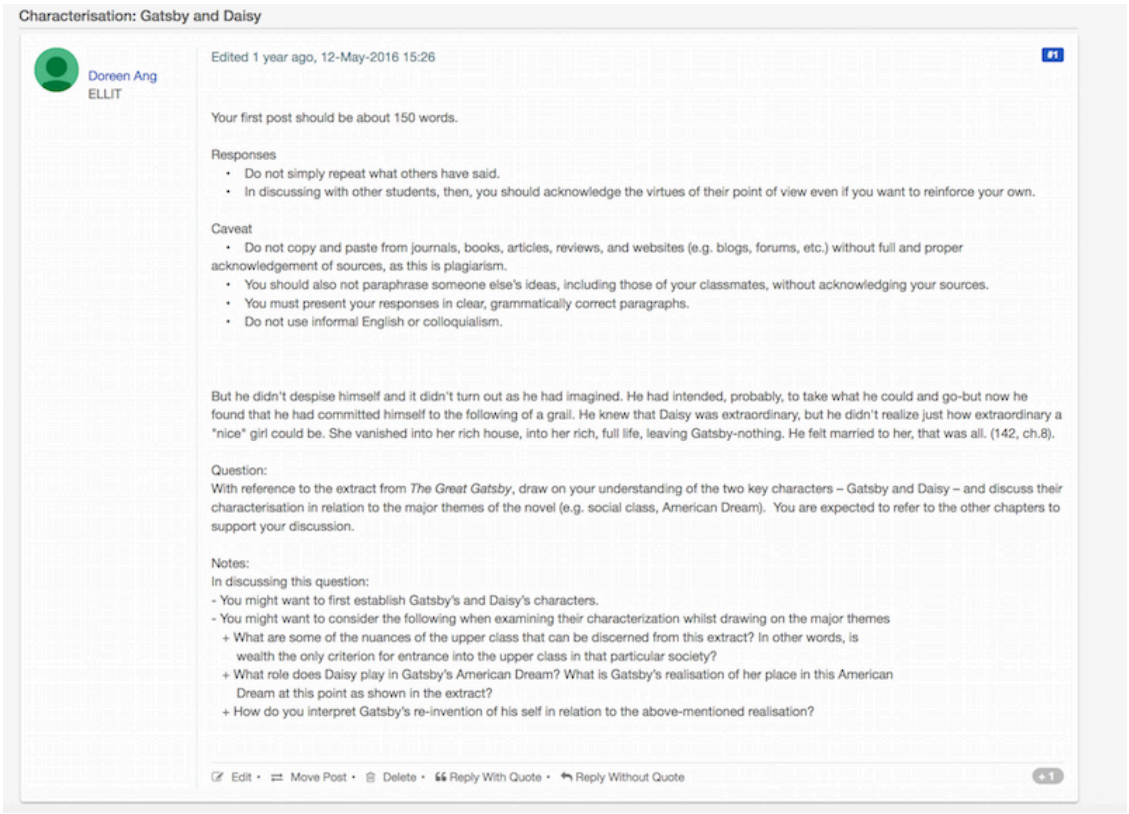
Please refer to the following links on Seamus Heaney and attempt a critical deconstruction of 2 different online text types:

http://www.nobelprize.org/nobel_prizes/literature/laureates/1995/heaney-bio.html
http://www.telegraph.co.uk/culture/books/5132022/Interview-with-Seamus-Heaney.html
http://www.theguardian.com/books/2008/nov/08/seamus-heaney-interview
http://www.theguardian.com/books/2013/aug/30/seamus-heaney
http://www.nytimes.com/2013/08/31/arts/seamus-heaney-acclaimed-irish-poet-dies-at-74.html?pagewanted=all&_r=0
http://www.newyorker.com/books/page-turner/seamus-heaneys-beauty

Edit • Move Post • Delete • Reply With Quote • Reply Without Quote 0




## Date: Term 2, Week 1 & 2



# Appendix Two: Discussion Question for Wiki

## Date: Term 2, Week 3-4

**Objectives of the E-Learning exercise:**

*Students should first show an awareness of the function and purpose of the wiki and the appropriate language required for their audience. The end product should display not only understanding of the features of the wiki as a text type but also the topic (e.g. context) under discussion.*

**General Instructions to students:**

This e-learning task is a group effort, meaning that everyone has to do the research and provide constructive critique in the construction of this wiki. At no time should a student focus on a particular section whilst ignoring how it contributes to the entire wiki. Note that for a wiki, there must be in-text citations, hyper-links and a reference section. Please do not copy and paste. Please remove these instructions as you construct your wiki.

The group is to print out a copy of the wiki and hand it in on the 28th of May to your respective LangLit (Strand 1) teacher.

**Topic: Textual Bias**

Focus on the political/social/cultural bias that is present in news reporting (print and/or online). You can focus on particular issue(s), personalities or event(s) to highlight this political/social /cultural bias. You might want to look at different types of newspapers (broadsheets, middle market and tabloids) or the online equivalent.

**Topic: Stereotypes**

*Gender*

Focus on how the media portrays gender stereotypes across time. In your wiki, ensure that there is a section on cultural and/or historical context. Please bear in mind that there should be no discussion on LGBT issues and instead please focus on gender stereotypes.

**Topic: Stereotypes**

*Ethnicity*

Focus on how the media portrays ethnicity stereotypes across time. In your wiki, include a section on cultural and/or historical context. Please focus on a specific ethnic group and do not try to include the world in this discussion.

## Date: Term 2, Week 6-8
## (Examples of students' constructed Wiki)

*Background of time period (1920s)*

Contents

1. 18th Amendment
2. Economic prosperity
3. Science and Technology in the 1920s
4. Wall Street Crash of 1929 and its aftermath

18th Amendment

History (2) | Edit | Delete

Last Modified @ 5/9/2016 7:21:57 PM

On January 16 1920, the 18th amendment of the United States Constitution was established where the sale and consumption of alcohol was prohibited and illegal. This led to the illegal smuggling and sale among the americans due to their hunger for alcoholic beverages.

**18th amendment - Prohibition**

The conservatism and the fast times of the 1920's had to clash at some point. That point turned out to be alcohol. The conflict over the use of alcohol, known as Prohibition, provided one of the more colourful periods in American history.

In December 1917 Congress adopted and submitted to the states the 18th amendment, known as the Prohibition amendment, which prohibited the "manufacture, sale, or transportation of liquors." Ratified by the states in January 1919, it went into effect on January 20, 1920. Congress also passed the national Prohibition Enforcement Act, known as the Volstead Act, that defined an intoxicating beverage as any beverage containing more than one half of one percent. The law also gave the Bureau of Internal Revenue enforcement authority.

The passage of the 18th Amendment was the product of many years of hard work on the part on women's groups and religious fundamentalists. Women's groups blamed alcohol for husbands leaving their wives and families and for the abuse of women. As far as both groups were concerned alcohol was an evil that destroyed the American family. By 1918 29 states already had adopted amendments to their state constitutions prohibiting alcohol.

Enforcement of the Prohibition amendment was difficult because drinking was a custom ingrained in the fabric of social life. The saloon had grown out of the frontier and had matched the pace of industrialisation and urbanisation each step of the way. It was almost impossible to do away with drinking, especially in the cities. Before long law enforcement officials they were battling individuals abusers as well as a new problem: organised crime. Gangsters such as Al Capone, king of the Chicago underworld, saw illegal alcohol importing and transportation as a way of

## *Background of Author*

Contents



Early Life — History (2) | Edit | Delete

Last Modified @ 5/3/2016 9:57:16 PM

F. Scott Fitzgerald (Francis Scott Key Fitzgerald), was born in Saint Paul, Minnesota, on 18 September 1896. He was named after his famous second cousin, removed three times from his father's side, Francis Scott Key, who wrote the lyrics to "The Star-Spangled Banner". He was known as Scott Fitzgerald. He was also named after one of his two deceased sisters, Loiuse Scott Fitzgerald.

His father, Edward Fitzgerald, of Irish and English ancestry, ran a failed wicker furniture business in Saint Paul, and then went on to work for Proctor & Gamble, which moved his family between Buffalo and Syracuse in Upstate New York. His mother, Mary "Molly" Mcquillan, was from an Irish-Catholic family, and had inherited a fortune from her family's wholesale grocery business.

## *Background of literary period*

Contents



Feminism — History (6) | Edit | Delete

Last Modified @ 5/4/2016 9:31:31 AM

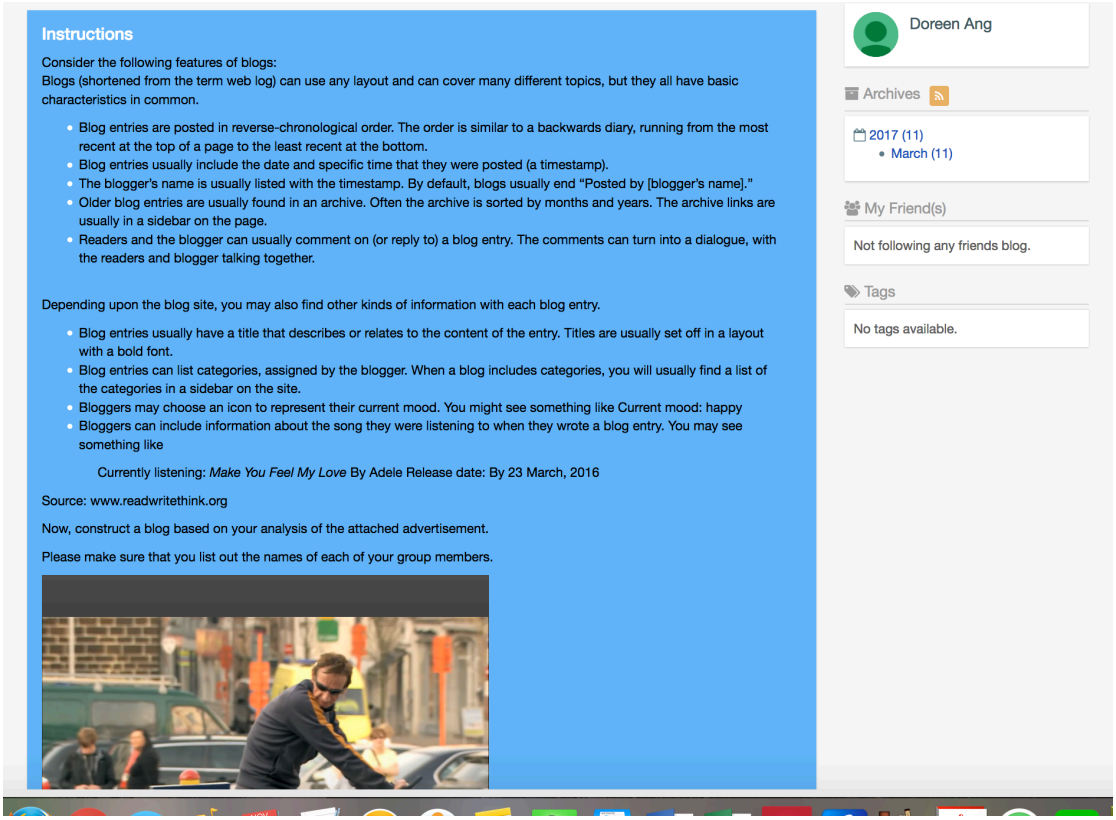
Feminism is  a political, cultural or economic advance aimed at establishing equal rights and legal protection for women by giving men and women equal rights. Feminism includes political and sociological theories and philosophies that address the issues of gender difference, as well as a movement that supports gender equality for women and campaigns for women's rights and interests. The term "feminism" gained popularity in the 1970s. However, feminism was already used in public, for example, the "feminist movement" was introduced by Katherine Hepburn in 1942. Feminists and scholars have divided the movement's history into three "waves". The first wave refers mainly to women's suffrage movements of the nineteenth and early twentieth centuries (mainly concerned with women's right to vote). The second wave refers to the ideas and actions associated with the women's liberation movement beginning in the 1960s (which campaigned for legal and social rights for women). The third wave refers to a continuation of, and a reaction to the perceived failures of, second-wave feminism, beginning in the 1990s.

feminism.jpg

## Appendix Three: Discussion Question for Blog

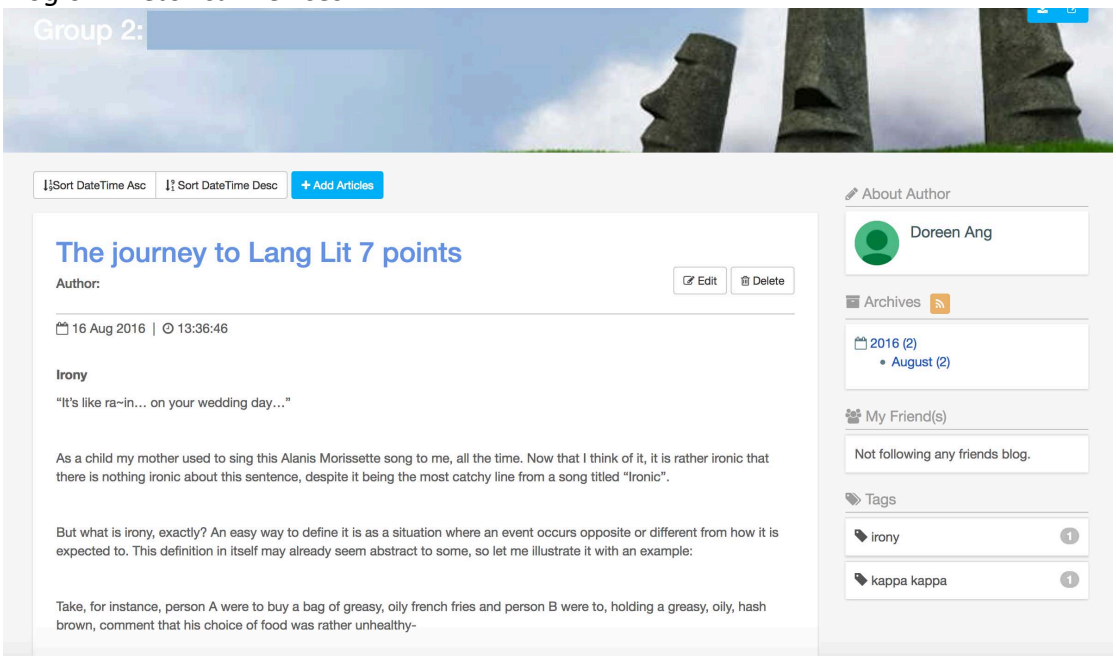
### Date: Term 2, Week 1-2

*Blog on Advertisements*



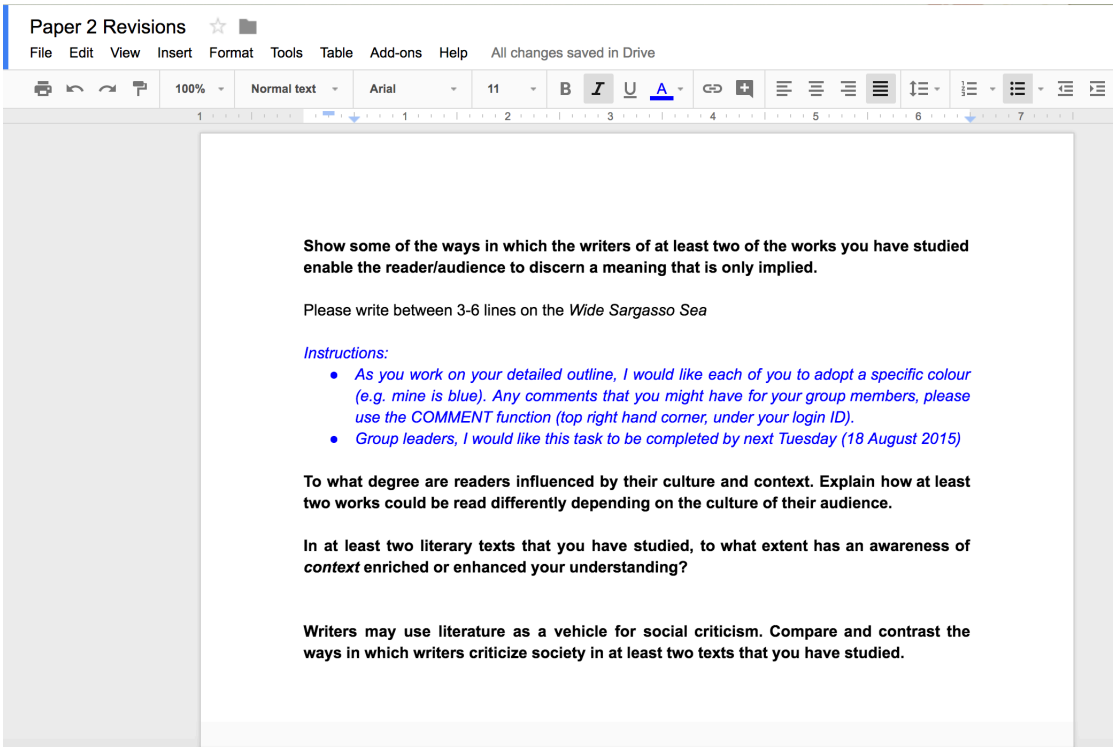

### Date: Term 3, Week 3-4

*Blog on Rhetorical Devices*



## Appendix Four: Discussion Question for GoogleDocs

### Date: Term 3, Week 5-9



## Appendix Five: Interview Questions 1

Interview questions (adapted from Ference Marton, Watkins, & Tang, 1997)

1. **Introduction**
    a. How are you enjoying your first semester at school? What do you like best about your studies this term?
    b. What do you like least?
    c. You have had a few weeks of LangLit lessons. What do you enjoy most/least? Why?
    d. Has it been different from what you imagined it to be? What are some of the aspects that you have found different?

2. **Actual Task (online forum & a pen and paper essay)**
    a. Can you tell me about the task(s) that you had to do on LMS?
    b. How did you go about it exactly?
        i. For instance, what did you do first?
    c. And after that?
    d. Was any part difficult? Can you elaborate on that?
    e. How did you go about writing your Paper 1 and 2?
        i. For instance what did you do first?
    f. Was any part difficult? Can you elaborate on that?

3. **General Questions**
    a. Thank you for elaborating on how you went about completing that particular task. Would that be a typical way in which you will approach the study?
    b. What sort of things affects your approach to learning?
    c. Would you change your approach
        i. Different assessment (e.g. MCQs, Essay, in-class test, common test etc.)
        ii. For different subjects?

4. **Conceptions and approaches to Learning**
    a. The paper in front is something that you have written in the previous term about learning. Could you explain that and is there anything that you would like to refine or change about what you have written?

5. **Attributions**
    a. How satisfied are you with your Paper 1 and Paper 2?
    b. What factors do you think contributed to the marks given?
    c. Are these the same factors which influenced the grades you've got on other texts? Can you explain?
    d. Do you think that you can control these factors? Please explain.

6. **Technology**
    a. How do you view LMS in your classes? (e.g. content repository)
    b. How do you view LMS in your LangLit classes?

## Appendix Six: Pre-Survey/Post Survey

Questionnaire questions (adapted from Margaryan et al., 2011; Thompson, 2013)

### Questionnaire

QUESTIONS RESPONSES 14

How many of the following do you own? *

- [ ] Mobile Phone
- [ ] Laptop Computer
- [ ] Desktop Computer
- [ ] Tablet Computers (iPad, Samsung, Asus, etc.)
- [ ] Personal Media Player (e.g. iPod, Samsung Galaxy Player, Zune, Creative Zen, etc.)
- [ ] Video Game Console (Wii, PlayStation, Xbox)
- [ ] Digital Camera
- [ ] Other...

Which of the following do you use for your learning? *

| | daily | weekly | monthly | never |
|---|---|---|---|---|
| Text Messaging | ○ | ○ | ○ | ○ |
| Google/Google Scholar | ○ | ○ | ○ | ○ |
| MP3 Players | ○ | ○ | ○ | ○ |
| Handheld computers | ○ | ○ | ○ | ○ |
| Youtube | ○ | ○ | ○ | ○ |
| Blogs | ○ | ○ | ○ | ○ |
| Podcasts | ○ | ○ | ○ | ○ |
| Simulations | ○ | ○ | ○ | ○ |
| Facebook | ○ | ○ | ○ | ○ |
| Twitter | ○ | ○ | ○ | ○ |

| | | | | |
|---|---|---|---|---|
| Instagram | ○ | ○ | ○ | ○ |
| Telegram | ○ | ○ | ○ | ○ |
| Ask.fm | ○ | ○ | ○ | ○ |
| Kik | ○ | ○ | ○ | ○ |
| Whisper | ○ | ○ | ○ | ○ |
| Tumblr | ○ | ○ | ○ | ○ |
| MySpace | ○ | ○ | ○ | ○ |
| Video conferencing (i.e. Skype) | ○ | ○ | ○ | ○ |
| Chat (i.e. messenger, etc.) | ○ | ○ | ○ | ○ |
| Wikipedia | ○ | ○ | ○ | ○ |
| Video clips (excluding Youtube) | ○ | ○ | ○ | ○ |
| Internet Websites (excluding youtube and video sites) | ○ | ○ | ○ | ○ |

Which of the following do you use for socialising? *

| | daily | weekly | monthly | never |
|---|---|---|---|---|
| Text Messaging | ○ | ○ | ○ | ○ |
| Google/Google Scholar | ○ | ○ | ○ | ○ |
| MP3 Players | ○ | ○ | ○ | ○ |
| Handheld computers | ○ | ○ | ○ | ○ |
| Youtube | ○ | ○ | ○ | ○ |
| Blogs | ○ | ○ | ○ | ○ |
| Podcasts | ○ | ○ | ○ | ○ |
| Simulations | ○ | ○ | ○ | ○ |
| Facebook | ○ | ○ | ○ | ○ |
| Twitter | ○ | ○ | ○ | ○ |

| | | | | |
|---|---|---|---|---|
| Instagram | ○ | ○ | ○ | ○ |
| Tumblr | ○ | ○ | ○ | ○ |
| Telegram | ○ | ○ | ○ | ○ |
| Kik | ○ | ○ | ○ | ○ |
| Ask.fm | ○ | ○ | ○ | ○ |
| Whisper | ○ | ○ | ○ | ○ |
| MySpace | ○ | ○ | ○ | ○ |
| Video conferencing (i.e. Skype) | ○ | ○ | ○ | ○ |
| Chat (i.e. messenger, etc.) | ○ | ○ | ○ | ○ |
| Wikipedia | ○ | ○ | ○ | ○ |
| Video clips (excluding Youtube) | ○ | ○ | ○ | ○ |
| Internet Websites (excluding youtube and video sites) | ○ | ○ | ○ | ○ |
| Forum boards | ○ | ○ | ○ | ○ |
| Blogs | ○ | ○ | ○ | ○ |
| LMS Forum boards | ○ | ○ | ○ | ○ |
| Others (Please fill in the blanks below if you choose any answer besides NEVER) | ○ | ○ | ○ | ○ |

If your response is Others, please state which other online tools you use for socialising.

Short answer text

Which of the following do you use for recreation purposes? *

| | daily | weekly | monthly | never |
|---|---|---|---|---|
| Text Messaging | ○ | ○ | ○ | ○ |

| | | | | |
|---|---|---|---|---|
| Forum boards | ○ | ○ | ○ | ○ |
| Blogs | ○ | ○ | ○ | ○ |
| LMS Forum boards | ○ | ○ | ○ | ○ |
| Others (Please fill in the blanks below if you choose any answer besides NEVER) | ○ | ○ | ○ | ○ |

If your response is Others, please state which other online tools you use for your learning.

Short answer text

| | | | | |
|---|---|---|---|---|
| Google/Google Scholar | ○ | ○ | ○ | ○ |
| MP3 Players | ○ | ○ | ○ | ○ |
| Handheld computers | ○ | ○ | ○ | ○ |
| Youtube | ○ | ○ | ○ | ○ |
| Blogs | ○ | ○ | ○ | ○ |
| Podcasts | ○ | ○ | ○ | ○ |
| Simulations | ○ | ○ | ○ | ○ |
| Facebook | ○ | ○ | ○ | ○ |
| Twitter | ○ | ○ | ○ | ○ |
| Instagram | ○ | ○ | ○ | ○ |
| Tumblr | ○ | ○ | ○ | ○ |
| Telegram | ○ | ○ | ○ | ○ |

| | | | | |
|---|---|---|---|---|
| Ask.fm | | | | |
| Kik | | | | |
| Whisper | | | | |
| MySpace | | | | |
| Video conferencing (i.e. Skype) | | | | |
| Chat (i.e. messenger, etc.) | | | | |
| Wikipedia | | | | |
| Video clips (excluding Youtube) | | | | |
| Internet Websites (excluding youtube and video sites) | | | | |
| Forum boards | | | | |
| Blogs | | | | |
| LMS Forum boards | | | | |
| Others (Please fill in the blanks below if you choose any answer besides NEVER) | | | | |

If your response is Others, please state which other online tools you use for recreation purposes.

Short answer text

[Formal Learning] When attending classes, how often do you use your computer and/or tablet computers? *

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
|---|---|---|---|---|---|---|---|---|---|
| Not at all | | | | | | | | | All the time |

[Formal Learning] When attending classes, how often do you use google docs as a technological tool? *

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
|---|---|---|---|---|---|---|---|---|---|
| Not at all | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | All the time |

[Informal Learning] How often do you use your computer and/or tablet computers at home to complete your assignments? (This excludes the use of the internet) *

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
|---|---|---|---|---|---|---|---|---|---|
| Not at all | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | All the time |

[Informal Learning] How often do you use other technological tools (e.g. twitter, instagram, text messaging, etc.) to complete your assignments? *

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
|---|---|---|---|---|---|---|---|---|---|
| Not at all | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | All the time |

When learning something that interests you, how important is technology for helping you learn? *

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
|---|---|---|---|---|---|---|---|---|---|
| Not at all | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | All the time |

[Informal Learning] How often do you use the internet (e.g. World Wide Web and google docs, School website) to complete your assignments? *

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
|---|---|---|---|---|---|---|---|---|---|
| Not at all | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | All the time |

[Formal Learning] When attending classes, how often do you use these technological tools (e.g. twitter, instagram, text messaging, etc.)? *

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
|---|---|---|---|---|---|---|---|---|---|
| Not at all | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | All the time |

## Appendix Seven: Interview Questions 2 and 3

### Semi-structured Interview

1. **Introduction**
    a. You have now reached Term 3, how have you fared in your recent common test?
    b. What are some of the reasons that might have played a role in your grades?

2. **How do you view LMS in your classes? (e.g. content repository)**

3. **How do you view LMS in your LangLit classes?**

4. **You have actually done two tasks on different platforms (LMS and GoogleDocs). Which do you prefer? Why?**

5. **When studying, which technology tool do you use the most? Why?**

6. **In your revision for your final examination, will you go into LMS to revise the content that the class has done for the year? Why?**

7. **Do you find that technology helps or hinders your study? Why?**