Dissertations   **Theses and Dissertations**

Leaders of Change: An Exploration of Relationships Between International School Administrators' Mindsets and Their Preferred Leadership Styles

Joe Brogan
University of San Diego

LEADERS OF CHANGE:
AN EXPLORATION OF RELATIONSHIPS BETWEEN INTERNATIONAL SCHOOL
ADMINISTRATORS' MINDSETS AND THEIR PREFERRED LEADERSHIP STYLES

by

Joseph Mortimer Brogan III

A dissertation submitted in partial fulfilment
of the requirements for the degree of

Doctor of Philosophy

June 2022

Dissertation Committee

Robert Donmoyer, Ph.D.
Fred Galloway, Ed.D.
Jeffrey Sheldon, Ph.D.

University of San Diego

University of San Diego
School of Leadership and Education Sciences

CANDIDATE'S NAME: Joseph Mortimer Brogan III

TITLE OF DISSERTATION: AN EXPLORATION OF RELATIONSHIPS BETWEEN INTERNATIONAL SCHOOL ADMINISTRATORS' MINDSETS AND THEIR PREFERRED LEADERSHIP STYLES

APPROVAL:

_____, Chair
Robert Donmoyer, PhD

_____, Member
Fred Galloway, EdD

_____, Member
Jeffrey Sheldon, PhD

DATE: 4/19/22

ABSTRACT

At the heart of educational leadership is the ability to manage change. Leaders who can successfully manage change invariably will be more effective. This is especially true in the often-transient world of international schools, where change happens frequently in response to evolving internal and external environments.

K-12 international schools that use the English language as the medium of instruction have proliferated since the end of the Cold War. There has been exponential growth, especially in China, India, and other developed and developing nations. The quality of leadership in these schools is extremely important to stakeholders, especially students, and, consequently, it is important that those hiring managers/leaders for such schools hire people who have what Dweck called an incremental/growth mindset which is defined as people who believe that their intelligence and talents are malleable.

The purpose of this quantitative research study was to understand the relationship, if any, between international school leadership team members' preferred leadership styles and their embrace of an incremental/growth mindset. The study surveyed 122 middle- and senior-level international school leaders. The survey instrument included (a) demographic questions; (b) items from the Multifactor Leadership Questionnaire (MLQ) developed by Bass & Avolio which assessed whether a leader embraces what Burns characterized as transformative or transactional leadership styles; and (c) questions adapted from the Implicit Theories of Intelligence scale developed by Dweck to determine whether leaders hold more of an incremental/growth mindset or a fixed mindset. The collected data were analyzed using both independent sample t-tests and multiple regression analysis.

The findings from this study indicate those hiring leaders can reasonably infer whether a candidate is likely to have a growth mindset once they determine if the candidate's leadership style is not laissez-faire. In fact, the findings indicate that a growth mindset is negatively associated with a preference for a laissez-faire leadership style, even though there were no statistically significant findings linking either transformational or transactional leadership with the growth mindset construct. The impact of these findings can lead to selecting leadership candidates committed to making whatever changes are necessary to ensure student success.

DEDICATION

To two amazing women, my wife Aileen, my mother, Cook,

and the dearly departed Ayeshia Medlin, Mary and Marianne Herlihy, Marie McDonald, and

John Mark.

ACKNOWLEDGMENTS

ORDER OF PAGES

LIST OF TABLES

LIST OF FIGURES

CHAPTER ONE

OVERVIEW OF THE STUDY

The Concept of a Growth Mindset

The growth mindset concept is rooted in an incremental theory of intelligence as developed by Claro et al. (2016), Dweck (2006), Liet al. (2017), Masters (2014), Robinson (2017), and Yeager et al. (2019). The incremental theory of intelligence holds that the capacity for students to achieve through their own natural ability can be continuously improved. The theory posits that when academic achievement is below the student's expectations, the student will facilitate a remedial response to rectify the sub-standard performance. Remedial response can be in the form of applying for additional learning material and courses or requesting assistance from teaching staff (Li et al., 2017).

The growth mindset concept was originally developed to describe young students but is now used to also describe adults. In *Mindset: The New Psychology of Success* (2006), Dweck contrasted a growth mindset from a fixed mindset. A growth mindset predisposes those who have it to rethink their views of situations and their strategies for addressing problems, and a belief they can continuously improve. Students possessing a growth mindset are more likely to critique their own performance and seek additional resources to meet any performance shortfall, or where results have been sub-standard (Li et al., 2017). Those with a fixed mindset believe their intelligence, skills, and other abilities are fixed, so a fixed mindset is based on entity theory in which a student's intelligence is fixed and remains at the same level regardless of the acquisition of new data or information. When a student underperforms their perceived lack of intelligence is regarded as the causation rather than the student's proclivity to invest more effort into their studies as would a

student possessing a growth mindset. A fixed mindset is based on the idea that perceptions and categories used to make sense of the world do not change appreciably.

Dweck (2016) emphasized that while everyone utilizes both a fixed and growth mindset in different situations, those who overwhelmingly interact with the world with a growth mindset are likely to be more successful, including international school leaders, this rather than those who operate primarily with a fixed mindset. Other research suggests that students possessing a growth mindset are more likely to adapt to appropriate changes and improve academic outcomes using both initiative and guidance. Such students are more capacitated to embrace challenging assignments and adopt new and innovative strategies thereby achieving higher levels of academic success (Limeri et al., 2020). The researcher noted that students with growth mindsets tend to more successful in their personal lives as they are more able to adopt non-cognitive factors in terms of personal goal setting and understand the psychological interpretation of personal challenges; such a growth orientated approach to problem solving enables these students to thrive (Limeri et al., 2020).

According to Dweck & Molden (2007):

The passion for stretching yourself and sticking to it, even (or especially) when it's not going well, is the hallmark of a growth mindset; this is the mindset that allows people to thrive during some of the most challenging times in their lives. (pp. 7–8)

International school leaders would be viewed as successful if they can persuade students and teaching staff to invest effort into seeking out and using innovation and creativity to incrementally achieve higher annual academic performance scores.

International Schools and Their Leaders

Parents normally have high expectations for their children in terms of the future. With finite resources available in the world, but unlimited needs and wants, there is stark competition raging among citizens in every economic system throughout the world to improve their children's chances of a successful future. Parents in all social classes, but perhaps especially those viewed as middle class [i.e., there are approximately 7.6 billion people in the world, 3.6 billion of whom can be classified as middle class (World Data Lab, 2020)] often view education as one of the key determinants of achieving a better life. Therefore, the demand for an education that will keep their children out of poverty is growing, and international schools[1] are seen by the global middle and upper class as one of the conduits through which their children can become successful.

In the past twenty years, the growth in the volume of international schools, largely in the Global South (i.e., Africa, Asia, Caribbean, Latin America, Middle East, Oceania, and Pacific Islands) that cater to this aspirational middle class and to the global elite (top global 2% in income and wealth), has led to growing opportunities for more school leaders. This has led to these leaders relocating to international schools and for teaching staff already employed in these schools to consider moving up into leadership positions.

Almost all modern school environments are difficult places for school leaders to navigate and lead. This is certainly the case in many international schools. For example, there is a seemingly ever-changing curriculum and competing pressures on leaders from school boards and local communities. The inclusion of multiple diverse cultures in international schools is not optional but a norm requiring ongoing changes to curricula. For cultural diversity to be accommodated and

---

[1] "Schools with a global outlook located mainly outside an English-speaking country delivering a non-national curriculum at least partly in English" (Bunnell 2019)

embedded within international schools, the curriculum needs to be regarded as perhaps incomplete and therefore continually reviewed to reflect an institutional acceptance and willingness to embrace staff and student cultural diversity. In extra-curricular activities, students are being increasingly encouraged to learn other languages and about linguistically associated cultures. For example, the Japanese and Korean languages are becoming popular with the pop cultural phenomenon such as Korean wave and hallyu (Hollingsworth, 2019).

The above example indicates there is an increasing amount of cultural diversity that needs to be accommodated without losing focus on promoting student learning. One problem associated with a diverse learning environment involves familiarity with the English language. While the language of instruction in international schools is English, not every student is a native English speaker. Also, there are often tensions between expatriates and those who live in the countries where international schools are located, and what Tarc (2013) deems as "native-speakerism" (p. 68) in which teachers and students who are native English speakers are valued more than those who are non-native speakers. Grimshaw (2007), as quoted by Tarc (2013), writes: "Native-speakerism may be defined as an ideology which creates a dichotomy between native-English-speaking and non-native-English speaking teachers… leading to discrimination against the latter… At its heart is the unspoken assumption that the "non-native speak" is in some way "culturally deficient (p. 372). School leaders who possess a growth mindset would promote and adopt an institutional approach in which all cultures and diversity is embraced and included as a vital part of the institution's in-house curriculum and procedural norms. Moreover, school leaders and staff with a growth mindset would be required to facilitate the exchange of cultural values so that non-native speak and other cultural differences are viewed as an asset and a valuable contribution to

the institution, such a way of broadening and enriching the minds of the students (Limeri et al., 2020).

Along with cultural and language diversity, there is also diversity in the types of international schools that operate throughout the world. Some are for-profit and others are not-for-profit. There are family-owned schools and schools owned by large international conglomerates with hedge-fund money used to support the formation of such schools. There are day schools, boarding schools, and schools that are a hybrid of the two. The challenge for international school leaders is that leadership experience gained in one international school setting will not necessarily be relevant or comparable to how leadership is conducted in another international school setting. This suggests that there may be a lack of standardization or uniformity (apart from the use of English) in terms of how these schools operate so that what may work in one international school is not feasible or appropriate in another. Limeri et al. (2020) posits that a growth mindset in international school leaders may be a way of countering this apparent lack of operational uniformity among international schools. Such a "mindset and academic performance constitute a positive feedback loop" (p. 1), that can in turn facilitate a more predictable and known studying environment for students regardless of which international school they attend (Limeri et al., 2020, p. 1). Their study also inferred that a more standardized form of teaching and learning leveraged by school management within these schools may better create "more persuasive and effective mindset interventions to promote student success" (p. 1).

In addition, there are controversies about the support and governance of international schools. Bunnell (2019) stated that autocratic regimes, at times, invest in countries via "international schools" through state owned "Sovereign Wealth Funds" which create ethical issues of governance (p 77). Bunnell quotes from a 2018 study by Carpantier and Vermuelen in which

autocratic regimes sought to invest in international schools overseas due to a lack of investment opportunities in their home nations.

Navigating complex school environments with a range of different stakeholders is not for any school leader, therefore it is certainly the case that leaders of international schools should be willing to grow, change, and adapt in response to the situations in which they work. This willingness is associated with a growth mindset (Dweck, 2000). There is, in fact, literature that supports the claim that a growth mindset can help international school leaders overcome the numerous obstacles that they inevitably face (Hildrew 2018; Kaser & Halbert, 2009; Ricci, 2018). These issues include ever changing curriculums requiring the inclusion of emerging cultures and diversities, the turnover of school leaders due to competing interests by academic communities, native speakerism, and the absence or lack of standardization or uniformity (Grimshaw, 2007; Limeri et al., 2020; Tarc, 2013).

Problem Statement

The literature pertaining to the leadership mindset supports the claim that a school leader's growth mindset is invariably associated with a school's success (Hildrew, 2018; Kaser & Halbert, 2009). School success, specifically in an international school, can be viewed in terms of evidence as pointing to students' happiness and their positive attitude toward academic learning. (Winston, 2013). However, even in the evidence of growth mindset in successful schools' it is often hard to recognize or measure within their leadership style. It is equally difficult during the hiring process to recognize prospective leaders who have a growth mindset because it is not always appropriate to administer an instrument that identifies growth mindset in job candidates. It is much easier for the prospective employer to determine a candidate's preferred leadership style through brief conversations, or by reading descriptions of their operational capacity thereby indicating how they

would lead an organization. Ideally, if a job candidate's preferred leadership style is known then the prospective employer should be able to determine whether that candidate has a growth mindset.

In hiring new international school leaders, it is desirable to look for candidates with a growth mindset because they are invariably open minded and flexible in their approach to growing a school, tend to be transformative and results-driven, and who will encourage innovativeness and creativity in their teachers and staff. Should they (teachers and staff) be slow to adopt a growth mindset, they can be motivated by leaders with a growth mindset to outperform their own expectations; such a leader would not tolerate complacency but would encourage teachers and staff to be comfortable with the element of uncertainty that comes from changes within and without their school that may directly impacting their work. This would especially be true when curricula are changed or updated, or when there are cultural shifts in the school's collective mindset due to increased diversification. Essentially, a leadership style that sets aside a hierarchical approach and adopts an empathetic and consensus-mode of governance, would inevitability demonstrate how a growth mindset is successfully implemented in a school thereby leading teachers and staff successfully through a period of flux and change.

Purpose of the Study/Research Questions

Given paucity in the peer reviewed literature about a potential relationship between growth mindset and preferred leadership style, the purpose of this study was determining if, and the extent to which, there is a relationship between international school leaders' growth mindset and their preferred leadership style. The study attempted to answer the overarching research question: Do international school leaders who embrace a growth mindset have a preferred leadership style? This study focused on international school Senior Leadership Teams (SLTs) members (egg: principals, head teachers and assistant head teachers) who manage the daily operational functions in

international schools and international school middle-level leadership team members (e.g., such as department heads, teachers and teaching assistants). The inclusion of both middle-level leaders and senior leaders in the school leadership pyramid framework offered the study a broader scope than would a study focused on just one management level.

Research Questions

The study attempted to answer the following questions:

1. To what extent do international school senior leadership team members and middle managers exhibit either a growth (incremental) mindset or a fixed (entity) mindset?

2. What is the preferred leadership style of international school senior leadership team members and what is the preferred leadership style of international school middle managers?

3. If the responses of senior and middle management leaders differ to either of the first two research questions, are the differences statistically significant?

4. What is the extent to which the leadership style preferences of senior and middle managers associated with a growth mindset?

CHAPTER TWO

EXPLORING THE RELATIONSHIP BETWEEN A GROWTH MINDSET AND

LEADERSHIP PREFERENCES

A Review of Relevant Literature

The study explored, within the international school context, the relationship, if any, between embracing what the literature refers to as a growth mindset and leadership style preferences. Specifically, the results from implementing the instrument that measures growth mindset, the Theories of Intelligence Scale, were compared with the results generated by the Multifactor Leadership Questionnaire which covers three leadership styles (i.e., transformational leadership, transactional leadership, and passive/avoidant behavior, also characterized as laissez faire leadership).

To better understand the context in which international school leaders operate and the two constructs to be measured, three distinct bodies of literature were reviewed. The first section describes international schools and the exigencies of international school leaders. The second section examines the mindset literature, especially that which differentiates between a growth versus a fixed mindset. The third section examines literature on leadership styles, especially the styles measured by the Multifactor Leadership Questionnaire, the instrument used in this study.

International Schools and International School Leadership

International Schools: Historical Facts and Definitions

The historical literature on international schools' documentation suggested that when the Cold War ostensibly ended with the unofficial mutual cessation of Cold War hostilities around the time of the final dissolution of the Soviet Union in 1991, international schools proliferated around the globe (Bunnell 2019; Tarc 2013). According to ISC Research (2020), which focuses on the

study of international schools, currently there are more than 11,000 international schools with over

5.6 million students.[2] ISC Research (2020) defined international schools: If 1) the school delivers

a curriculum to any combination of pre-school, primary, or secondary students, wholly or partly

in English outside an English-speaking country; or 2) a school is in a country where English is one

of the official languages, it offers an English-medium curriculum other than the country's national

curriculum, and the school is international in its orientation.

Bunnell (2019) coined the term GEMIS that, when spelled out, provides a succinct

definition of international schools: "Globalized English Medium of Instruction Schools" (p. 2).

The idea behind this term is that international schools, which are found primarily in the Americas,

Asia, Africa and Europe, offer a global outlook in their educational programs.

Hayden and Thompson (2013), noted that the classic definition of an international school

is an organization that is "market-driven for the children of expatriates and predominantly not-for-

profit" (pp. 5-8). He then notes that this view from the 1960's is no longer completely appropriate

due to the proliferation of for-profit international schools primarily catering to the newly affluent

or aspiring middle class within host countries. A more contemporary definition of international

education is therefore necessary. According to Bunnell, (2019), they are defined as: "Schools with

a global outlook located mainly outside an English-speaking country delivering a non-national

curriculum at least partly in English" (p. 1). Both definitions emphasize the use of English as the

language of instruction, and both indicate a global or international perspective.

---

[2] Although international schools remain a preferred choice of many expatriates, the vast majority of enrolments
(approximately 80%) are now children of local families attending an international school in their native country.
(*The Market - ISC Research* 2020)

Best International School Practices

Although there has been a steady growth in international schools, there is a dearth of literature available about best practices in international schools, including best administrative/leadership practices. Specifically, there is an apparent research shortfall in the field of international schools compared to the amount of research focused on other types of educational institutions. For example, there is little valid or relevant peer reviewed literature pertaining to what international school leaders with a growth mindset might do in an international school setting, and the impact school leaders with such a mindset could have in this somewhat niche setting. In addition, there is scant literature about the leadership styles of international school administrators/leaders, and nothing about the relationship between the leadership style preferences of international school administrators and a growth mindset.

Unique Contexts

Although there is an absence of literature about effective practices, including leadership practices, the literature makes clear that international schools are unique organizations due to variability in contexts. Both Benson (2011) and Odland and Ruzicka (2009), for example, have documented that international schools are notorious for high staff turnover as many administrators and teachers leave every three or four years due to visa requirements and cessation of tax honeymoons. Consequently, studies are needed that provide evidence pertaining to how effectively international school leaders manage this relatively constant change in key personnel.

In addition, the student bodies in many contemporary international schools are largely comprised of English Language Learners (ELL). Many ELLs are regarded as "at-risk" students, in the sense that they may drop out of school at a higher rate (DeCapua & Marshall, 2011; Olson, 2014; Sheng et al., 2011). This at-risk designation is not necessarily applicable to the ELLs who

attend international schools, however. The reason both English native-speaking and foreign students living in upper class urban neighborhoods are likely to have parents who are highly educated and engaged in professional occupations whereas foreign students from poorer urban neighborhoods or outlying rural areas are more likely to suffer class discrimination when positioned in the international school setting.

However, with international schools there are also class issues at play with ELL students, and, consequently, the literature on ELL students in other types of schools may not be relevant for leaders who must oversee ELL education in international school settings. An ELL from an affluent family background, for example from China, Spain, or Mexico. studying in an international school is likely to have significantly fewer challenges than an "at-risk" low-socioeconomic ELL student moving to the United States from Guatemala. The difference has a great deal to do with the differing levels of support and resources available to each type of student. Moreover, there are other factors that make international schools unique, as well. For example, most international schools are, by their very essence, diverse, multicultural environments.

The literature suggests that international school leaders face intense scrutiny from parents, boards of directors, and other stakeholders, especially from parents who view international schools as gateways to an elite lifestyle for their offspring (Bates, 2011; Bunnell, 2019; Tarc, 2013; Walsemann et al., 2013). This is in an era of high stakes testing views success is viewed through the prism of exam scores (Aviles, 2017; Oliveras-Ortiz, 2015). In international schools, consequently, pressure is put on international school leaders by parents to keep exam scores high, especially scoring associated with International Baccalaureate exams, British 'A' level exams, and American curriculum Advanced Placement exams. However, there has been no empirical research conducted within the international school context about how international school leaders cope with

testing pressures, even though literature conducted in other settings has addressed this topic (see, e.g., Donmoyer, 1985; Hargreaves & Fullan 2012; Marzano et al., 2006). Testing pressure within other academic settings sometimes results in teachers and school leaders neglecting to develop and use new materials that are not included in testing. School leaders may be encouraged to leverage and prioritize systemizing the curriculum so that it focuses both teachers and learners on transforming testing so that it tutors rather than punishes poor student performance. Such pressure can also be processed via identifying short and long-term testing objectives to create clarity and direction when conducting testing programs (McMillan, 2003).

Summary

There is evidence based on earlier discussions concerning a shortfall in literature regarding the quality of leadership in international schools. The evidence suggests that further understanding concerning the leadership functionality of international schools is required as such institutions are unique and niche entities, and therefore such leadership functionality requires further research. Given gaps in the research on international schools, future research must consider that there is no standard model for international schools. Existing studies suggest that schools utilize divergent curricula and foster different school cultures and climates (Bunnell, 2019; Tarc, 2013). For example, international schools may teach a British curriculum with A levels and IGSCE, an International Baccalaureate curriculum, Canadian or Australian curricula, or an American curriculum comprised of many Advanced Placement (AP) courses. Within these respective systems there are differing cultural norms and variations of the English language. Furthermore, variations in how international schools function and deliver learning may require scholars to re-think their accepted definition of what constitutes an international school.

The Mindset Literature and Its Implications for Leadership in International Schools

This section focuses on the literature about mindset. The section covers the following themes or topics: How the mindset concept has been defined, the empirical evidence about the impact of growth mindset on leaders, and the rationale for supporting a growth mindset in international schools.

Growth and Fixed Mindsets Defined

With its roots in developmental psychology, the mindset construct has been described as, "the idea of how individuals find meaning in the world and idealize their persona" (Dweck, 2000). Two theories inform this construct: Entity theory and incremental theory. Entity theory is thought of as a worldview that intelligence and ability are fixed in that they cannot be changed or developed. The idea of "learned helplessness" is central to entity theory. Learned helplessness is when the mastery of a task is viewed as almost impossible if someone perceives there is little possibility of achieving such mastery (Bandura & Dweck, 1985 Park, 2015). Conversely, incremental theory explains that those with an incremental worldview may view mastery as possible, even if there are less than spectacular results during the initial performance of a task (Bandura & Dweck, 1985, Park, 2015).

Dweck (2006) posited that incremental theory of intelligence was an indicator of how students could process failure simply by adopting a mindset in which they positively viewed what others may perceive as failure as in fact an integral part of the learning process. Here, the students never considered the possibility of failure when engaged in the learning process. Moreover, these students possessed a mindset that embraced challenges and problems as a vital component in their acquisition of knowledge. Essentially, Dweck (2006) viewed those with incremental theory of intelligence to be unlikely to quit or give up when faced with difficult challenges, this as opposed

to those with entity theory of intelligence who were more likely to quit when faced by challenges. In addition, students with incremental theory of intelligence tended to possess higher levels of self-confidence and feel less threatened by unknown or unfamiliar challenges. These students did not feel threatened when they had no answer to a problem, rather their mindset and default attitude drove them to believe that perseverance and hard work would provide valid answers and solutions (Dweck, 2006).

This incremental theory is not about levels of intelligence but rather about belief systems and attitudes that serve to predict learning behaviors and academic outcomes. Students who demonstrate this theory understand how much effort, resilience and determination is required to meet academic objectives. These students are highly motivated to ignore short term outcomes in favor of more effort to achieve small and consistent successes towards mastering and gaining long term goals. Based on numerous studies, Dweck (2006) found that students who demonstrate incremental theory of intelligence often acquired this mindset from parents and tutors. When parents and teachers praised the student's effort and not the outcome (such as an exam result) they were fostering a growth mindset, such implied that the learning process and the required effort are more important than an exam result. The idea of a "growth mindset" was developed by Dweck (2000) based on incremental theory regarding task mastery Dweck coined the term growth mindset after researching children's learning-related motivation and development revealing that children differed in their perceptions of their ability to solve problems and rectify situations. In their 1973 study, Dweck and Repucci, found some children who shrank from academic challenges whereas others embraced these challenges. They suggested that when students possess a growth mindset, they believe that hard work, perseverance, learning, and training can make a positive difference in their successful achievement of meeting challenging academic tasks (Dweck, 2006).

While a learner's effort using incremental theory within a classroom setting may not potentially translate into measurable performance in terms of exam results, such an incremental thought process can enhance practice and perseverance and the development of skills. This application of incremental theory into the classroom domain relates to the capacity for increased effort rather than increased performance results. In a quantitative study pertaining to a programming activity in which incremental mindset intervention was tested on students' performance, beliefs, programming behaviors and effort in an experimental experiment study, the intervention offered positive results. When compared with the control group, the experimental group adopted a more incremental mindset which then led to benefits in areas like time management and effort (Rangel et al., 2020).

In Dweck's 2006 research, she identified students as having either a fixed or a growth mindset. She noted that the students who had a fixed mindset believed their academic successes or failures were due to their inherent ability and working harder would not change their academic outcome. Conversely, Dweck argued that those with a growth mindset did not believe talent or intelligence were immutable. They believed that if they worked hard, they could improve, were more likely to take academic risks, and to see failure as a teachable moment. Students with a growth mindset looked for feedback on their failures and wanted and believed they could do better the next time they tried.

Dweck's mindset theory was originally developed for a student population. However, Dweck and others, such as multinational companies like Proctor & Gamble, Google and Microsoft, have also applied these principles to adults in the past two decades. The study of growth mindset and its effect on leadership in organizations has been the subject of published studies (Bloch et al., 2012, Özduran & Tanova, 2017). In a literature review on the application of growth mindset in

adult learning Han and colleagues found that the concept had been applied to not only adults in leadership, but also other "core qualities" ranging from evaluating others, demonstrating resilience, and effective gameplay (Han et al., 2018). Dweck's mindset theory is a versatile concept that has been applied by researchers from ages ranging from children to adults.

The Rationale for Leading Schools with a Growth Mindset

In 2006, Dweck articulated a philosophy of leadership regarding the influence a growth mindset can have on school leaders:

> We need leaders to create transformed schools using a new growth mindset. The passion for stretching yourself and sticking to it, even (or especially) when it's not going well, is the hallmark of a growth mindset. This is the mindset that allows people to thrive during some of the most challenging times in their lives. This growth mindset is based on the belief that your basic qualities are things that you can cultivate through your efforts. Although people may differ in every which way – in their initial talents and aptitudes, interests, or temperaments – everyone can change and grow through application and experience. (pp. 6–7)

Ultimately, Dweck's claim that leaders need a growth mindset to "thrive during some of the most challenging times" (p. 6) is supported by Gardner's (2007) work. One specific aspect of Gardner's five minds concept that correlates with Dweck's mindset theory concerns describes the capacity of a five minds construct to synthesize data and information that appears to be confusing, contradictive and even of an unknown quality. Such as mindset will construct a "pivotal role in the modern information-inundated world, where the ability to work with and synthesize disparate information is very valuable" (Qadir et al., 2020, p. 6). As already noted, the growth mindset can embrace, translate and integrate challenges and apparent contradictions as a transformative

mechanism to enact meaningful change within learning institutions, viewing such challenges and even failures as an integral positive aspect of the learning experience (Qadir et al., 2020).

Gardner (2007) argued that there are leadership minds and approaches that are important for modern leadership in organizations, and that a mindset synergy is needed to be creative, respectful, ethical, and disciplined. Dweck's (1999) mindset paradigm is complementary to Gardner's concept of five minds to integrate for the future: Cognitive, synthesizing, creative, respectful, and ethical (Gardner, 2007). Taken together, a leader who cultivates this synergy of "five minds" would constitute a growth mindset leader.

Gardner (2007) posited that if a person possesses a cognitive and disciplined mind, they will have the capacity to succeed in meeting any challenges and view such obstacles as necessary learning steps. Those who have a synthesizing mind possess the capacity to construct balanced decisions concerning personal or professional problems via the acquisition and processing of sufficient data and information. A creative mind enables people to become independent of relying on computers and technology but rather to leverage such resources to maximize opportunities. A respectful mind pertains to the capacity of a person to both respect themselves and to gain the respect from others so as to create an environment that is harmonious and productive. An ethical mind depicts a caring and empathetic stance in which collective concerns may take precedence over self-interests (Gardener, 2007).

These five minds serve to perform as an indicator concerning how a growth mindset operates and functions in terms of motivating innovative thinking and optimizing transformative actions that target growth via sustained effort and durability.

In terms of translating how the five minds can be applied into the academic realm, the ability of the synthesizing mind to objectively evaluate a curriculum and then translate it into tasks

that are measurable and achievable for both teaching subordinates and students, is most similar to having a growth mindset. In an international school setting, this approach would innovatively translate tasks that are incorporated in an evolving curriculum into actionable tasks for teachers and students who come from diverse backgrounds and cultures. Moreover, Gardner's creative, respectful, and ethical mindset correlates directly with a growth mindset as a transformative international school leader would conjure new ways (creative) to entice teachers and followers to strive for excellence while respectfully embracing diversity so that the needs of all stakeholders (ethical) are considered (Dweck, 2006; Gardner 2007).

Effective leadership practices as discussed by Donmoyer et al. (2012), and Waters et al. (2003) could be classified as the practices that transformative leaders use and are in evidence of a growth mindset according to Dweck's definition. Notably, having a growth mindset can support school leaders in their efforts to become transformative leaders via allocating them with the responsibility to proactively shape transformational initiatives and testing in which temporary failures are viewed as beneficial over the longer term. Also, such a mindset supports leaders by allowing them to take appropriate risks relative to predicted outcomes, conduct innovative initiatives and motivate students and teaching staff (Aviles et al., 2017).

When the growth mindset is stimulated or triggered by transformational leadership it does contribute to "the proactive personality-engagement relationship" (Caniëls et al., 2018, p. 58). In a quantitative study of 259 participants, such a relationship was strengthened when those with a growth mindset do receive transformational leadership (Caniëls et al., 2018). Leaders exhibiting a largely Transformational leadership style are found to have a positive relationship in regard to employees learning from their errors, which is a main element of a growth mindset (Bligh et al.,

2018). Akin to the key features of a growth mindset, a transformational leader seeks positive growth in terms of the professional as well as the personal from their followers.

Harvey et al. (2013) claimed that transformative leaders typically shape a vision of academic success for all students, create a climate hospitable to education, cultivate leadership in others, improve classroom instruction and manage people, data, and processes, all with the goal of improvement in schools. These leaders set an example for other school stakeholders by aligning the organizational vision and mission to short-term and medium tactical goals as well as overarching long-term strategic goals. Beyond setting an example for other school stakeholders, the results of Hanson, Ruff, and Bangert's 2016 study suggested that if administrators adopt a growth mindset there would likely be improvement in school culture. According to Fullan (2007), a school culture can be described as the values and guiding beliefs inherent in the operation of the school. Should the school leader possess a growth mindset it could potentially become embedded into the school culture. Central to the influence of the school culture is the construction of a growth mindset curriculum that flexibly anticipates failures and challenges, encourages the input of effort, and avoids the reliance on performance-based results (Hildrew, 2018). Presumably, administrators with a growth mindset were more likely to be effective in gauging their school culture, and in creating dialogue with teachers concerning the implementation of a school-wide growth mindset. When a school-wide growth mindset is implemented, students benefit in terms of possessing a vision of their academic future, acquiring the ability to communicate effectively with teachers, and study using innovate and creative thinking processes.

Yettick's 2016 U.S. nationwide study of growth mindset in the nation's classrooms surveyed 600 teachers concerning their beliefs regarding a growth mindset and how it linked to student achievement. Yettick found that 82% of educators believed academic achievement was

improved with student engagement and motivation, 69% believed teaching quality was the key factor in student achievement, and 67% of teachers indicated school climate was a key factor to student achievement. In addition, Stronge et al. (2007) suggested that teachers utilizing a growth mindset are effective in terms of efficient communication of instructions to students, periodically assessing student improvement, coordinated classroom management using persuasion and an empathetic personality. Effective teaching translates into the ability for a teacher to ask more probing questions and elicit rather than instruct. This style of approach incurred less frequent off-task behavior from students and enacted higher learning gains. By modelling the tenets of and leading through the lens of a growth mindset in daily interactions with their team members, leaders can impact the school culture, and therefore empower and encourage their teachers and other staff to develop a growth mindset (Hildrew, 2018; Ricci, 2018). Through this modelling of a growth mindset, synergy could potentially be achieved between leaders and other educators in the building to raise expectations for students and achieve success through a shared vision and mission. One way to achieve this is for school leaders to prioritize growth mindset professional development for teachers, and then teachers can model to students that they too are lifelong learners (Gerstein, 2014). Through this method of modelling and creating a growth mindset culture buy-in between leader, teacher, other members of staff, and students can potentially be achieved over time.

The Empirical Evidence about the Impact of Leaders who have a Growth Mindset

International school leaders who possess a growth mindset pass on this capacity to think and process data and information to students under their care. These students are able to understand that there is almost unlimited capacity for the cognitive function to improve not only with successes but with failures too. Students who have been taught this capacity usually naturally perceive improvements via success and failure as a mechanism to build cognitive capacity

(Hanson, Ruff & Bangert, 2016). Leaders with a growth mindset impact the learning process by setting an example to staff and students pertaining to how to extract lessons and experiences from challenges; such malleable intelligence serves to expand operational capacity and performance in both students and staff (Hanson et al., 2016).

The idea of a leader exhibiting a growth mindset is not the exclusive domain of school leadership, or international school leadership in particular. Although the day-to-day work in a school setting is usually different than other organizations, especially compared to the corporate world, there are certain universal lessons that can be learned from all disciplines and businesses in terms of leadership practices. The mission and vision of organizations may differ, but leading people, with all their emotions, needs, and wants, can all be viewed through a growth mindset lens. In fact, flexibility and adaptiveness are hallmarks of effective leaders navigating change in any endeavor (Gottfredson & Reina, 2021). To be an effective international school leader, it is important to be well-rounded and to understand the trends of leadership in all areas of human endeavor in order to benefit the shaping of their organizational culture.

Evidence of a growth mindset and its implications for change was also found among other organizational leaders. Dweck (2006) mentions former General Electric (GE) CEO Jack Welch as a growth mindset leader who empowered his subordinates through coaching and, ultimately, leading GE to organizational success. This positive outcome was demonstrated by increased revenues and higher rates of growth over the years following the former CEO's transformative coaching methods (Dweck, 2006). Similarly, Ozdura and Tanova (2017), in a study of managers in the hospitality industry in Northern Cyprus, found that leaders who used incremental mindset theory through the process of coaching were growth-mindset oriented and their actions had positive effects on both their subordinates and their organization. Subordinates were found to be

task orientated even when not monitored and were willing to participate in training programs. The organizations (12 five-star hotels) began to recruit managers who while lacking experience, possessed incremental mindsets leveraged via a cultural disposition that embraced ongoing organizational development (Ozdura & Tanova, 2017).

Hoyt et al.'s 2012 study explored the role basic beliefs which guide peoples' behavior in leadership roles. The researchers hypothesized that those with an incremental disposition or growth mindset were more open to taking on the role of mentor. Mentoring of team members by a school leader is important as it relates to school culture and academic achievement as it allows the leader to transmit their particular mission and vision for the school community onto their followers. Leaders who are mentees can potentially be seen as problem solvers, and not those who cast blame by their followers. This coaching style can potentially build up faith and trust in the leader. The idea that everyone is a lifelong learner is a potent one, and leaders who can mentor other educators are potentially seen as dynamic and confident. Mentoring also plays a critical role in assisting students from underrepresented groups such as racial and ethnic minority students successfully navigate difficult courses, especially those in the Science, Technology, Engineering, and Math (STEM) disciplines (Singh, 2021). Women also benefit from mentoring in fields in which they are underrepresented, especially in STEM. Singh (2021) also found that mentees are more likely to be happy in their work as growth mindset mentors are seen as positive role-models. Mentoring, which is partially the transmission of knowledge, values, and skills from the mentor to the mentee, shows that a leader can lead by example and these interactions helps foster successful school cultures.

When leading those they supervised through a task, those with a growth mindset behaved differently than leaders with an entity mindset that viewed ability as a more fixed mindset. Leaders who possessed an incremental disposition tended to encourage sub-ordinates and even peers to

take on risks when there was a likelihood of a favorable outcome and develop a culture or mindset of continual effort and perseverance. Moreover, when failure or setbacks occurred, these leaders pointed out to their sub-ordinates the value of developing psychological stamina and the wherewithal to persist and grind through both expected and unexpected setbacks; such validating the concept that knowledge and learning is gained in part by adversity.

However, leaders endowed with a narrower entity mindset were more likely to adopt a traditional stance and judge sub-ordinates based on conventional test and exam results, this rather than on longer term qualities such as the ability to persist and the capacity to push through adversity until expectations are met. The study suggests that incremental theorists believe individuals can be mentored to become leaders. Entity theorists, however, posit that leaders are born and therefore if an individual is not born a leader there is little anyone else can do to help that individual become a leader. Hoyt et al. (2012) conducted two studies. Participants in the first study completed a survey that was based on Dweck's implicit theory of intelligence assessment.

The researchers found that women leaders, considered to be incremental theorists (i.e., having a growth mindset), depicted greater leadership confidence than those who were found to be entity theorists (i.e., having a fixed mindset); "People with more incremental leadership qualities, compared to entity theories of leadership reported greater leadership confidence and less anxious-depressed affect after being presented with role models and undertaking a challenging leadership task" (p. 13). In the second study, Hoyt et al. (2012) included both men as well as women to show that mindset is not gender specific. The findings from the second study confirmed that participants who were incremental theorists indicated a higher level of performance when undertaking their leadership task than those who were entity theorists. The two studies confirmed that leaders are made rather than born. Dweck (2016) claims that while as humans we are born

with certain capabilities, such are just the beginning or starting point for the development of a mindset or way of thinking. Such development can only be cultivated through effort, failures, challenges and hard work, and as such is an ongoing effort. Therefore, leaders who want to possess an incremental mindset have to go through a step-by-step process of development; such leaders are 'made and not born' (Dweck, 2021).

Future studies on the efficacy of leaders who have a growth mindset compared to leaders who have a fixed mindset are necessary given what appears to be a shortfall of peer-reviewed evidence based on sufficiently large sample sizes and populations representative of the larger leadership population pertaining to the differences between these two mindsets (Hoyt et al., 2012). In another study, Kouzes and Posner (2019) looked at the link between managers' growth or fixed mindsets and their leadership behaviors. The results of the study suggest that managers practicing growth mindset leadership developed more leadership competencies than managers with a fixed mindset. The managers with a fixed mindset seemingly did not grow from their experiences and did not add to their repertoire of problem solving, conflict mediation, and other hard and soft skills that an effective manager employs compared to managers employing a growth mindset.

There is also a body of literature that explored the advantages of leading a school with a growth mindset (Hildrew, 2018; Kaser & Halbert, 2009; Ricci, 2018). Hildrew surveyed 150 school staff members to ascertain their growth mindset and led professional development on the state of the school at which he was headmaster. The growth mindset questionnaire was seen by Hildrew as a good jumping off point for his teacher table discussions to ascertain how growth mindset could be embedded into the school culture (Hildrew, 2018). During the course of the professional development session Hildrew introduced the idea that a growth mindset ethos should be embedded into the school culture, and thus provide children with encouragement to welcome

challenges, develop a never-give-up attitude, and view continuous effort or practice as the route to academic success and achievement. Hildrew claimed that such cultural changes were possible when evidence-based transformation occurs, and also stressed that all staff, and not just teachers, were involved in this growth mindset training to link the school ethos, mission and vision to growth mindset (Hildrew, 2018).

Kaser and Halbert (2009) compiled case studies conducted in Canadian schools, as well as in international schools, this conducted over a period of ten years. The studies identified six leadership mindsets: 1) moral purpose; 2) continuous professional development; 3) inquiry-oriented; 4) ability to build trusting relationships; 5) evidence-informed; and 6) able to move to wise action (pp 4-8). Kaser (2009) noted that "All the mindsets are important, and they are all linked" (p. 3). Kaser and Halbert (2009) pointed to Dweck's concept of growth mindset as a major factor in their push for the six proposed new mindsets to take hold. Kaser and Halbert's six new proposed mindsets include the mindset that is consistently inquiry-oriented, which infers a determined approach to the gaining of knowledge regardless of challenges and failures during the learning process (Kaser & Halbert, 2009). One of the characteristics inherent in Dweck's growth mindset concept pertains to the attitudinal capacity to seek new knowledge and gain learning experience without quitting. This suggests that the learning decision-making construct is evidence-informed and governed via networks of inquiry rather than inputted by possibilities of failure, inappropriate emotional response or affected by irrelevant test results. The researchers state, "We agree with the arguments proposed by a number of thinkers that the move from an industrial to a knowledge-based society demands a shift in key assumptions about learning, schooling, and leadership" (p. 11). In application, Kaser and Halbert's paradigm shift for educators includes moving from what they term "sorting to learning" (p. 12). This means that due to the pace of

globalization, artificial intelligence and automation, leaders and teachers in academia must move from a traditional system to a more modern system. This translates to the importance of leadership in international schools as able to adapt to an academic culture of continuous development so that the acquisition of knowledge in academic and scientific disciplines guides the transition to 21st century systemization.

Limitations of the Growth Mindset Concept

Like many popular trends in education, there is literature criticizing the implementation of and methods associated with the concept of growth mindset. Growth mindset has been popular in schools worldwide, and millions of dollars have been spent to implement growth-mindset-oriented programs (Denworth, 2019; Papadopoulos, 2020). Despite its widespread appeal among educators, there are limitations on the proliferation of the growth mindset concept in schools. In 2016, Dweck reflected on growth mindset: "Everyone is actually a mixture of fixed and growth mindsets, and that mixture continually evolves with experience. A 'pure' growth mindset doesn't exist, which we have to acknowledge to attain the benefits we seek" (p. 1). The idea that many organizations and people have a false understanding of growth mindset, limits widespread implementation and efficacy of the concept. Again, Dweck (2016) stated that misconceptions abound when people and organizations implement growth mindset, and this is a limitation on the construct.

Dweck (2016) cautioned that a false growth mindset translates to limiting its proliferation as the core idea was misunderstood due to erroneous understanding that the application of tutoring by a leader with a true growth mindset was simpler than in reality. Such a false growth mindset can be demonstrated when teachers merely tell their students just to try harder or offer false praise when test results are substandard. Rather, Briceño (2015) suggests that to avoid such confusing scenarios, a leader who possesses a genuine growth mindset will ascertain the reasons behind

academic failures by students and seek to engage in collaborative discussions with students to rationale why failure occurred and construct valid countermeasures to avoid repeating the same mistakes or failures. In addition, school leaders with an authentic growth mindset will tutor their staff and students concerning the value of revisiting poor performance as a means to acquire knowledge and experience (Briceno, 2015).

People may have a false understanding of the growth mindset concept due to misinterpretations of Dr. Dweck's work. One common critique, and false understanding, is that Dr. Dweck ignores people's innate ability and states that their success is due only to effort, but in fact she states that effort is just one part of a person's success (Nottingham & Larsson, 2019). Another false understanding of the concept is that growth mindset is over-simplified, whereas it is perhaps the reporting and implementation of the growth mindset construct that is often erroneous (Nottingham & Larsson, 2019). Another aspect of false understanding of the growth mindset concept comes when teachers offer a form of 'toxic positivity' by lavishing undue praise on students. Dweck cautions that rather than blind praise, teachers should encourage students to invest in effort and progress and should drive students to take risks and test and try out new learning strategies. Students can learn a false growth mindset if teachers take short cuts and simply facilitate easy wins rather than reassure students regarding their potential to overcome difficult challenges and failures (Adams, 2019). Although there may be an issue with a false understanding of the growth mindset concept, this has not seemed to hurt the popularity and adoption around the globe.

As further evidence of the limitations of the growth mindset concept, Sisk et al. (2018) conducted a study into the efficaciousness of growth mindset programs. The findings suggested they are not as effective as some advocates claim, and not a panacea for schools as the link between growth mindset interventions in schools and academic achievement is weak. These interventions

seek to increase growth mindset in students so their academic achievements improve. While the study of interventions shows the effects of growth mindset on student performance is "weak," it shows that at-risk students, or those from low socioeconomic backgrounds, benefited from growth mindset interventions (Sisk et al. 2018). However, the results of Claro et al.'s (2016) study in Chile indicated that students exhibiting a growth mindset were academically better off than their peers who possessed a fixed mindset. This is primarily due to the fact that these more disadvantaged peers were limited in terms of a healthy, positive attitude and they were faced with the tendency to quit or give up when faced by challenges or adversity.

While some studies indicate that growth mindset programs lack efficacy and question the validity of the link between the growth mindset and academic achievement, many studies suggest that Dweck's growth mindset has the capacity to be a significant learning tool if it is used and applied correctly. In the drive for school leaders to exhibit a growth mindset, these leaders should be cognizant and mindful of the potential harm that can be caused should the growth mindset be misinterpreted or applied correctly. Therefore, international school leaders should fully understand any initiative that they try to implement, and make sure that there is concrete understanding of these concepts and how to apply them before instituting them in their schools.

Even from an early age most students are cognizant that they will become smarter and grow cognitively as they engage in the learning process as opposed to a negative perception that the learning process is restricted by natural ability, a fixed mindset. Both teachers and students who have a fixed mindset tend to become judgmental and focus on limitations instead of looking at possibilities that can be extracted from failures. Therefore, when failure occurs, those with a fixed mindset tend to hide or cover up to avoid critiques or blows to their self-confidence. As students get older that negativity can set in leading to a fixed mindset and issues in terms of academic

performance (Murphy & Thomas, 2008). To potentially counter the negative outcomes of a fixed mindset it may be important to hire school leaders based on if they largely exhibit a growth mindset.

Summary

The preceding sections defined, summarized, and provided a rationale for school leaders embracing a growth mindset, and offered limitations in terms of the growth mindset concept. The empirical research on the desirability of having a growth mindset is evolving, and there have been studies positing its efficacy, as well as studies positing that there are few tangible benefits to implementing growth mindset interventions. There is a solid volume of literature about the efficacy of organizational leaders embracing and adopting a growth mindset. Dweck (1998) pointed out that the adoption of a growth mindset is a difficult and complicated solution, and it is hard work. Her research seems to imply that growth mindset in leadership is not a panacea to all issues, but seemingly a difficult and continuous process that requires commitment by school leadership. Due to the multicultural, politically challenging, ever-changing, and diverse environments an international school leader faces, adapting a growth mindset may prove to be an effective tool for managing international schools.

<p align="center">**Transforming, Transactional, and Laissez-Fair Leadership Literature**</p>

There are many definitions of leadership found in the extant literature. For example, Northouse (2007) defines leadership as "a process whereby an individual influences a group of individuals to achieve a common goal" (p. 3). Reed et al. (2019) maintained that leadership is defined as the capacity to empower, enable, influence, and motivate others to achieve measurable objectives. Moreover, leadership is not necessarily defined or recognized via title, position or external factors such as awards, rather it acts as a change agent and transmits a vision as a target

for subordinates to follow. Eddy & VanDerLinden (2006) defined a leader as someone who simply leads by example and is tasked to serve followers.

The literature on leadership styles is also extensive. Historically, discussions of leadership styles focused on the distinctive characteristics articulated by Burns (1978), arguably the patriarch of the Leadership Studies field, in his differentiation between transactional and transformative leadership styles. This discussion of leadership styles is limited to Burns's distinction between transactional and transformative leadership as the proposed instrumentation on leadership style measures many of Burns's constructs.

Burn's Distinction

In his 1978 book, *Leadership*, Burns argued that leaders could operate in either a transactional or a transforming way. Transactional leadership, is, according to Weber (1968), bureaucratic in nature, and involves a quid pro quo relationship (i.e., "I will scratch your back, if you scratch mine"). Howell and Avolio (1992) described transactional leadership as offering limited or restrictive mechanisms to drive business-unit performance. Burns (1978) wrote, "The relationships of most leaders and followers are transactional – leaders approach followers with an eye to exchanging one thing for another: jobs for votes, or subsidies for campaign contributions; such [instrumental] transactions comprise the bulk of the relationships" (p. 4).

Burns (1978) contrasted transactional and transforming leadership, noting that "the result of transforming leadership is a relationship of mutual stimulation and elevation that converts followers into leaders and may convert leaders into moral agents" (p. 4). Throughout his work, Burns (1978) used the term 'transforming' and 'transformational' interchangeably. Burns used the term "transforming" to describe the idea that leaders and those connected to the leaders were changed by their relationships with each other, and to signal that a shared vision resulting from

these relationships rather than the promise of external rewards or sanctions, was what motivated followers. Burns' (1978) transforming is a concept in which the morality, motivation, and ethical aspirations of both the leader and followers are raised.[3] Likewise, Downton (1973) claimed that transformational leadership is inspirational and raises the intellect or a person's emotions.[4]

Burns (1978) noted that transformational leaders' decision-making is framed by end-values such as equality, justice and liberty. They are desirable characteristics in part because transformative leaders raise their subordinates or transformative school leader's teachers raise up both teaching staff and students through levels of ethical behavior and moral conduct (Shields, 2011). As moral agents they acknowledge authority, support both public and private welfare, promote a culture of equity within society and work towards transforming social and academic environments into settings of excellence (Shields, 2011). In an international school setting such characteristics can potentially make transformational leaders' useful agents of positive change.

Laissez-Faire Leadership

In addition to transformative and transactional leadership, Bass and Riggio (2006) discussed a third leadership style, laissez-faire leadership. The laissez-faire leadership style, which is an absence of leadership, is universally considered to be an ineffective leadership style or strategy (Bass & Riggio, 2006). Laissez-faire leadership tends towards an informal, hands-off approach encouraging individual independence, leveraging human resource, and leveraging those with better skill sets, but its disadvantages outweigh many of its advantages.

---

[3]   Ibid, p. 264

[4]   Mansouri, N. (2015). Relationship between transformational leadership, Innovation, Learning and Growth, and Internal Process: Government Organizations. *International Journal of Science and Engineering Applications*, *4*(5), 282-286.

These disadvantages materialize as a tendency for subordinates to operate with little or no coordination within their team by choosing to take on tasks which do not match their skill sets. This style also attenuates group cohesiveness as there is no clear focus on group tasks resulting in subordinates becoming undisciplined, unaccountable, or avoiding personal responsibility. Compared to transformational leadership, adoption of laissez-faire leadership results in merit or accomplishments going unrecognized so there is little incentive for individuals or the team to perform well. A significant difference between these two leadership styles is a lack of adaptation to situations as and when they occur resulting in reactivity rather than being proactive. In some scenarios, the laissez-faire leadership style tends to mirror the transactional leadership style in that it will rely on legal frameworks and subordinate litigation similar to how a transactional leader relies on contractual obligations as operational policy. Skogstad et al. (2007) defines this type of leadership as destructive because it creates unnecessary stressors within the workplace.

Transactional Leadership

Transactional form of leadership is commonly viewed as a process of a cost-benefit exchange between leaders and followers (Kuhnert & Lewis 1987). Transactions require an agreed attributed value to the supply and demand of services. This leadership style involves the capacity of leadership to clarify objectives followed by the communication of activity and task-based objectives to subordinates, this supported by mutual cooperation (Burns, 1978). This leader-follower leadership framework is dependent on the mutual understanding and acceptance of hierarchical variables and joint capacity for both stakeholders to complete this mode of transaction or exchange of values. This transactional leadership is premised on the beliefs that subordinates, superiors and systems function more efficiently under a valid chain of command. The conception

of such a framework assumes that employees, teachers and students are motivated by rewards and punishment (Kuhnert & Lewis 1987).

Burns (1978) notes that transactional leadership is often the preferred initial interactional framework between leaders and followers. Essentially, one employee/teacher/student initiates contact with others to exchange things of value. Burns (1978) conducted case studies in which the transactional approach does not pursue the relationship and consensual duties beyond what was mutually negotiated. Such leadership tends to push rather than lead and tell rather than demonstrate, and the transactional framework is restrictive in design and risk-averse (Burns, 1978).

Transformational Leadership

Some of the literature on leadership suggests that transformational leaders are most effective in leading a diverse, multicultural environment. Keung and Rockinson-Szapkiw (2013), and Bryman et al. (2011) both provide concise yet different descriptions of what transformational leadership is about. Keung and Rockinson-Szapkiw (2013) associated transformational leadership with cultural intelligence. Their findings posited that there is a significant correlation between transformational leadership and cultural intelligence within international school leaders who possessed a growth mindset. Moreover, they found that the higher the level of transformational leadership in school leaders, directly correlated with the increase in their exhibition of cultural intelligence. Therefore, these types of international school leaders possessing high-cultural intelligence possessed the capacity to operate more effectively within multicultural academic environments. Transformational leaders could be identified when they demonstrated both cognitive cultural intelligence and behavioral cultural intelligence.

On the other hand, Bryman et al. offered a less definitive description as they wrote, "Transformational leadership is the process by which a leader fosters group or organizational

performance beyond expectation by virtue of the strong emotional attachment with his or her followers combined with the collective commitment to a higher moral cause" (p. 299). In the absence of studies conducted in international schools, Bryman et al. failed to clarify how a leader performs within an international school context.

As a leadership scholar, Burns (1978) applied the construct of transformational leadership to political leaders. It is instructive for international school leaders to consider examples of leadership from political executives, such as presidents and prime ministers, as there are transferable lessons that can be applied. Burns pointed to the transformational leadership of President John F. Kennedy's in his commitment to the Peace Corps as well as President Franklin Delano Roosevelt's Depression era Tennessee Valley Authority, both of which showed the profound power of transformational leadership. President Kennedy stated that he had full confidence in an informed populace to dedicate itself to any challenge which served to transform the US political landscape (Hay, 2006). Gunn (2009) noted that President Roosevelt was recognized as a global transformational leader as he inspired millions of Americans with a vision of freedom. Burns and Sorenson (1999) described the consistent actions expected of a transforming leader: "Transforming leadership would demand more than day-to-day incrementalism and fine promises. It would call for intellectual and moral creativity leading to real, purposeful, and lasting change" (p. 16).

The theory of transformational leadership can be traced back to Burns' work on political leaders. In time, the theory was extended by Bass and Avolio (1994) to describe the behaviors of business leaders. According to Berkovich (2016), "The popularization of transformational leadership theory in educational leadership cannot be understood apart from the current, change-oriented educational policy environment, which emphasizes restructuring and transformation to

meet 21st-century schooling requirements" (p. 2). Essentially, Berkovich (2016) inferred that in this 21st-century, transformational leaders tasked within the educational system possessed the capacity to create idealized influence within the school workplace. In addition, these leaders could inspire and motive staff and students, stimulate intellectual capacity and growth in students, and encourage individual development within both staff and students and any other stakeholders who/which may be relevant to the transformational change within schools.

Although Bass (1985) supported Burns' (1978) model by adding new sub-dimensions of transformational leadership, he did not stress moral and ethical end-values as strongly as Burns. Burn's (1978) model was somewhat limited to leadership in the political realm, whereas Bass (1985) extended the theory to include business, military, and leadership perspectives. Burns (2003) viewed transformational leadership as charismatic and inspirational, and Bass equally believed such leadership was designed to create the mindset capacity to offer inspirational motivation. Transformational leaders give followers more than just working for their own personal gain as they provide them with an inspired mission and vision, and perhaps more importantly, an identity. Bass (1995) posited that the task of transformational leadership is not to raise follower's consciousness levels, in contrast to Burns (1978) who inferred that such leaders could transform their followers' needs and desires so that these followers became more aware of the potential possibilities that exist when they in turn develop a growth mindset. In addition, followers who begin to develop a growth mindset can then motivate and encourage their leaders; a two-way mechanism for transformational change. According to Fuente (2016), this dual communication mechanism is vital in diverse, polyglot international educational institutions, and stated that "synchronic communication is most commonly used by transformational leaders as it… provides valuable feedback" (p. 37). According to Burns (1978) transformational leaders morally uplift their

followers: "such leadership occurs when one or more persons engage with others in such a way that leaders and followers raise one another to higher levels of motivation and morality" (p. 37).

The connection between transformational leadership and morality can be witnessed in the moral development of those who follow transformational leaders, this especially when followers have been following transformational leaders over a longer period of time. Mulla and Krishnan (2011) found that it took a three-year period for the relationship to sufficiently mature enough to yield morality in the followers. This suggests that patience is required for transformational school leaders to enact meaningful and sustainable changes in both teaching staff and students. A longer-term relationship between transformational leaders and subordinates tended to yield greater or higher levels of moral motivation and sensitivity (Mulla & Krishnan, 2011). This suggests that the connection between transformational leadership and morality is developed over time and that the followers will reflect moral values only after a period of time has elapsed in the development of their relationship.

Burns (1978) focused on the moral dimension leaders imparted on those they led while Bass (1985) advanced the importance and efficacy of transformational leadership in everyday situations. Bass suggested that there are four dimensions of transformational leadership (See Figure 1 below), including: idealized influence, intellectual stimulation, inspirational motivation and individualized consideration. As noted earlier, transformational leaders possess the capability to engender idealized influence within the school environment, identify and stimulate intellectual ability and growth in students, inspire and motive both faculty staff and students and initiate the individualized development of both school staff and students; such are key components of transformational leadership. For Bass and Riggio (2006), these are central to how transformational leaders can empower, inspire, and lead their teams to greater achievements. Leaders in

international schools who possess these four dimensions of transformational leadership can enable staff to adopt a more inspirational approach. Here they can foster their students' intellectual capacity through engendering psychological stamina and the ability to persevere thereby creating the cultural environment and attitudinal mindset to raise their students' levels of self-confidence.

Figure 1. The Four I's of Transformational Leadership

Extracted from Bass, B.M. (1985). Leadership and Performance Beyond Expectations. New York: Free Press.

The connection between Burns' four transformational leadership dimensions and Dweck's growth mindset can be understood in terms of the ability of transformational leaders to inspire, stimulate, motivate and influence their followers to embrace existing problems as a developmental mechanism (Burns, 1978). A growth mindset can be linked to a leader's continual problem solving as positive steps towards incremental change in an organization (Saad, 2021). Such transformational leadership dimensions seek to develop individual self-acceptance and to provide

the wherewithal for their followers to come up with innovative solutions to challenges as and when they materialize. These four dimensions correlate with the growth mindset as transformational leaders possess the vision and motivation to inspire and develop an ethical and moral core value system within their followers. Burns (1978) maintained that inspirational transformational leadership flourishes via a growth mindset when leaders and their followers motivate and drive each other to higher morality. Transformational leaders can communicate their vision and beliefs to their followers using a charismatic growth mindset through methods such as positive reinforcement and encouragement (Saad, 2021).

After a review of the theory of transformational leadership as proposed by Burns (1978), Burns changed his earlier stance to view transforming leadership as applicable to any culture and organization, and not limited to the political arena. According to Khanin (2007), Burns believed that transforming leaders cannot be both transactional and transformational as transactional leaders try to make a compromise between satisfying needs and meeting stated objectives. This is in contrast to Bass (1985) who posited that those leaders who exhibit exceptional leadership possess the ability to inspire and elicit extraordinary achievement. Fuente (2016) noted: "transformational leaders focus on individuals more than on large groups of people" (p. 37) and Burns pointed out that such leaders appealed to positive moral values. Blane (2017) regarded purely technocratic leaders as insufficient in an organization as "Technical skills absent clarity, purpose, and love are inadequate to allow a person to become a truly transformational leader" (p. 1). Blane believed that transformational leaders look to transcend the traditional boundaries of leadership: "Transformational leaders are dissatisfied with being good, and instead believe in and strive for a state best described as "flourishing" (p. 1).

Empirical Evidence in Support of Transformational Leadership

Empirically conducted research indicates that transformative leadership is more about the pathway to an objective rather than about just achieving stated goals. Therefore, the emphasis is not just about sustainable outcomes but the mindset and attitudinal response to engaging in the process to reach those outcomes (Steinmann et al., 2018). Leithwood and Jantzi (2005) provided empirical evidence that transformational leaders within academia place significant effort on leading via consensus rather than by instructions. Their authority tends to be manifested by delegating power through people rather than over them; such tends to be a facilitative aspect of transformative leadership. For example, these researchers observed teachers finding greater meaning in teaching students when gaining their students' trust through consensus building. In addition, empirical studies pertaining to transformational leadership within academic settings pointed to the capacity of teachers to meet higher level (curriculum) demands when motivated by transformational leaders.

Howell and Avolio's (1992) research concerning transformational leadership indicated that ethical leaders who practiced this style of leadership often had a positive effect on business unit performance, albeit some of these charismatic leaders can paradoxically destroy or damage performance should they be unethical. Toban and Sjahruddin's (2016) study focused on organizational commitment and job satisfaction finding that transformational leadership had a marked, positive effect on job satisfaction and commitment to the organization. In their empirical study, Uddin et al. (2017) found that there was a direct correlation between transformational leadership and job performance. This is because there is a negative correlation between deviant behavior and transformational leadership. The findings clearly indicated that both male and female

transformative leaders did enhance job performance in all genders and that there was an attenuation in deviant behaviors.

Keung and Rockinson-Szapkiw's (2013) study of international school leaders found that international school leaders were considered to be both culturally intelligent (as measured by the Cultural Intelligence Scale) and transformational leaders (as measured by the Multifactor Leadership Questionnaire 5X). The correlation between those leaders who met the qualifying questionnaire and 'scale' criteria and the growth mindset translates into transformative applications in terms of a transformative effect on international school key stakeholders such as teaching staff, curriculum developers, students and their parents. The researchers found that these leaders possessed the capacity to identify and embrace cultural diversity within the institutional setting. This led to the increase in intake of those from diverse backgrounds and different cultures not only in terms of students but also with teaching staff; such serving to increase and scale up teaching and learning resources. Such transformational leadership fostered behaviors that demonstrated psychological resilience in students when faced by challenges, such in turn developing cognitive cultural intelligence resulting in enhanced academic performance and outcomes. Therefore, based on the research conducted by Keung and Rockinson-Szapkiw (2013) and Uddin et al. (2017), transformative leadership has a significant positive impact on job satisfaction, individual performance or even organizational performance within both academic school settings and in a more corporate type of environment.

Critiques of Transformational Leadership

Berkovich (2016) noted that although transformational leadership is still popular, it is not without its detractors; at present it is strongly criticized in management studies but has not made its way into the educational administration discourse (pp. 3-4). Hay (2006) for example raised

several critiques of transformational leadership, pointing first to a 2002 study by Hall, Johnson, Wysocki and Kepner reporting that abuse of power is a problem inherent in transformational leadership (p. 13). Transformational leaders are almost always charismatic leaders and there is a long list of charismatic leaders who have brought ruin to their followers such as cult leaders Jim Jones and David Koresh. Hay's research also points to a 2003 study conducted by Stone, Russell, and Patterson which noted that "transformational leaders hold great sway over their followers" (p. 13).

While there are numerous positive aspects and characteristics of transformational leadership that can transform the productivity and performance in terms of operational functions within organizations including international schools, not all scholarly researchers hold the same views. One of the criticisms concerning the targeting of transformational leadership in the hiring process is that there are relatively few candidates who likely possess the necessary attributes to qualify as a transformational leader. This suggests that the high standards determined by researchers to transform institutions including international schools would deter or significantly reduce the number of potential candidates. This may be explained by transformational leaders being viewed as great individuals and even set on a psychological pedestal in which leaders may be unrealistically viewed in terms of perfection or as infallible (Tourish & Pinnington, 2002).

Findings by Bass (1999) indicate bias from depicting such leaders in a strong heroic light. Other findings indicated researcher bias in favor of transformational leadership by describing them as flawless, perfect, and present them as ideal leaders (Bass, 1999; Northouse, 2013). However, history offers numerous examples including that of Hitler who was characterized as a transformational leader, who according to Bass (1999) leveraged his hypnotic and emotional appeal to create chaos and hate. Other examples of transformational leadership that resulted in

negative outcomes include Jim Jones who charismatically inspired over 800 followers to mass suicide and Marshall Applewhite and Bonnie Nettles convincing 38 people during the Heaven's Gate scandal to purchase insurance against alien abduction (Chryssides & Zeller, 2014). Such examples of compromised leaders could be used as a balance mechanism to determine what levels of integrity should be evident in transformational leaders (Chryssides & Zeller, 2014). Such outcomes point to unethical and immoral conduct by both leaders and their followers (Howell & Avolio, 1992). This suggests that without an ethical and moral compass, transformative leaders can create conditions which have negative consequences. While transformative leadership skills can be taught, the character, disposition and mental aptitude of a potential transformative leader can determine if outcomes are negative or positive.

Lee (2014) critiques transformational leadership by arguing that characteristics such as the capacity to drive meaningful change, irresistible charisma and vision, and the ability to motivate followers to transcend personal self-interests for the well-being of (educational) institutions, lead to positive transformative outcomes. However, should these leaders leverage their skill sets and strengths to use them to exploit and not benefit their followers, such previously positive attributes can become weaknesses or counter-productive thereby resulting in poor outcomes. For example, if international students and teachers are motivated to prioritize the wellbeing of peers and the institution excessively over and above their own self-interests resulting in excessive mental stress, a tendency to be solitary and unsocial, and obsessive behavior, such can reverse the benefits of transformational leadership (Lee, 2014). Negative outcomes can be countered by transformational leaders adopting a balance between setting objectives with predetermined measurable outcomes and overestimating or overemphasizing the capacity of international school students and staff. Such balance requires collaboration and consensus between all key stakeholders (curriculum

developers, teachers and students) so that student and teacher (even parents) input can inform curriculum construction and enhance the integrity of the relationship between staff and students. The abuse of power by charismatic leaders, setting unrealistic teacher hiring criteria, absence of an ethical or moral compass and tendency to wrongly exploit followers and subordinates, are all indicators of valid inappropriate characteristics in transformational leaders.

Leadership Concept Related to Transformational Leadership

Although this discussion on leadership styles is focused on Burns' leadership constructs, there are several recently developed relationship-based leadership concepts similar to transformational leadership. In this section, literature about authentic, servant, and leader-member exchange leadership concepts and styles are discussed.

Authentic Leadership

The term authentic leadership was popularized by George in 2003 who stated that authentic leaders are positive and gain legitimacy with their followers through honesty; empirical research has generated strong support for leaders who are authentic. Several studies, including those by Jensen and Luthans (2006), Wooley et al., (2007), and Walumba et al., (2008), all provide evidence that leaders displaying authentic leadership provide followers with a more dynamic workplace (Bryman et al., 2011, p. 356–358). Such a dynamic workplace even within an educational institution can translate into an environment in which teacher and staff turnover is attenuated, this as it becomes an academic environment where job satisfaction and ongoing skill enhancement become natural workplace defaults. Low teaching staff turnover within the faculty is accompanied by a learning environment in which the students thrive on challenges set by teachers. Here students can adopt the mindset that their intellectual growth is based as much on effort and persuasion as it

is on short term exam results and punishment, or as noted earlier, pathway (learning experience) vs. goals (test results).

George (2003) noted that authentic leadership is measured by a leader's ability to process and manage competing values. An authentic leader in a school setting where subsets of the population hold values different from each other would, for example, ensure that relationships between staff are harmonious, relationships between students and teachers are trusting and productive, and that the focus on relationships is accorded equal effort to enhancing institutional results and performance.

While many leadership roles may focus on either growth or stability (transformation vs. transaction) the authentic leader focuses on both as a hybrid leadership model (George, 2003). George et al. (2007) claimed that such a leader can create authentic team harmony in which the leader is both an introvert and an extrovert. This inclusive stance results in a scenario in which no subordinate personality is omitted and both forms of leader personalities can participate in forging strong relationships and contributing to institutional growth.

Servant Leadership

Servant Leadership is another approach to leadership that appears similar, in many respects, to Burns' (1978) notion of transforming leadership. Regarding servant leadership, Cable (2018) wrote:

> Humility and servant leadership do not imply that leaders have low self-esteem or take on an attitude of servility. Servant leadership emphasizes that the responsibility of a leader is to increase the ownership, autonomy, and responsibility of followers, to encourage them to think for themselves, and to try out their own ideas. (p. 1)

There are many similarities between servant leadership and transformational leadership as the servant leader adopts an empathetic stance and listens to subordinates regardless of whether the views or opinions are different, or even combative. For Cable (2018), the research suggests that trust is built throughout the organization through servant leaders' transparent relationships with their followers.

Another attribute of the servant leader style is not a false humility, but an authentic awareness of the values and potential of subordinates and leveraging opportunities in which credit is given based on merit. This holds true for the transformative leader. For example, this type of leader in an international school is subtly aware that they are a steward of not only the sustainability of the institution, but they have the foresight to be a steward of the well-being of every student and staff member. As with a transformative leader, persuasion and reward guides the instructional and disciplinary process.

The main reason these other types of leadership styles such as authentic leadership and servant leadership were discussed and not measured was for the purpose of providing a relative and significant comparison between these differing leadership styles. Essentially, the inclusion of these other leadership styles was to provide some background framework and give some contextual value to the varied theories of leadership.

The Leader-Member Exchange Conception

Leader-Member Exchange (LMX) Theory, the third relationship-based leadership approach is similar to transforming leadership if it is conducted in face-to-face or one-on-one settings. In addition, correlations between LMX and transformational leadership pertains to the development of intuitive understanding between the leaders and followers. When the theory of LMX is applied into the academic institutional setting, the quality of the relationship between

school leaders, and students and staff becomes a key focus of constructing an appropriate leadership model.

Relational leadership as viewed as an aspect of LMX theory, is often considered an appropriate model in the classroom as the relationships between teachers and their peers, and between teachers and students are key to growing a school. Bryman et al. (2011) suggests, "LMX Theory is rooted in the principle that each leader-follower relationship within a work group is unique and varies in quality" (p. 311). Their research suggests there are both "in-groups" and "out-groups" within an organization, as the "in-groups" are those who are trusted and favored by the leader, whereas the "out-groups" are those outside of the circle of trust. As Rayner (2020) noted, the LMX relationship-based leadership approach focuses on inclusivity of both individual or groups regardless of whether they are in or out of favor of the leader, or if they are deemed as trustworthy.

This relationship model places equal importance of relationships and inclusivity being adopted between both individuals and groups. When multiple ethnicities, cultures and values are embraced and included within the relationship-based leadership model, students and teachers become empowered to be accountable, purposeful, and exhibit ethical behavior. This allows trust and empathy to inform such relationships. Such inclusivity is similar to the transformational leadership model in which compliance is by example and empathy. The views of every teacher and student are considered as a vital aspect of decision-making processes such as those made when designing and constructing annual curriculums. Whereas the transactional and laissez-faire leader tends to rely on contractual (regulatory) obligations and a disorganized approach to the school's operational functionality, relational leaders build people before building the academic organization (Rayner, 2020).

Variable Leadership Styles

Given variation in leadership styles it remains to be seen which will allow leaders to be most effective. Undoubtedly, this question cannot be answered without attending to the context in which leadership is being exercised. It is likely that leaders need a repertoire of leadership behaviors and must fit these behaviors to the problems they encounter and the environments in which they work. It is not surprising, therefore, that some scholars have advanced a theory of leadership that includes a hybrid style not rigidly attached to a single leadership style. This hybrid theory states that leaders should consider: "hybrid actualities and emergent complexities of reality" (Bryman et al., 2011, p. 451). As noted earlier, a false growth mindset in which praise from a teacher to students is not authentic, or a transformative leadership style that is shaped to exploit followers rather than enhance their outlook, may incorporate both transformative and transactional characteristics. There is also a body of work describing and, often, critiquing the leadership styles of school leaders (Aruzie et al., 2018; Ischinger, 2009). For example, Mitchell (2018) posited that not all leadership styles are cognizant of societal inequities. Moreover, some styles such as laissez faire style may not be appropriate within the school setting so that all students and all teachers are provided with equal opportunities in terms of growth.

Peter and Besley (2014) suggested that leadership styles should change due to diversity challenges, supporting the views of researchers such as Ischinger and OECD (2009) and Rayner (2020) concerning inclusively within the learning setting. Increasingly, issues concerning gender, socio-economic status, ethnicity, belief systems, and health/disability vulnerabilities all play into how the leader can embrace and empathetically lead by example, setting aside the title of leader to engage with subordinates without prejudice. An empathetic, creative and transformative leadership

approach can bypass red-tape and fast-track meaningful routes for all stakeholders via a growth mindset (Mitchell, 2018).

Summary

In summary, the growth mindset found in transformative leaders is grounded in the incremental theory of intelligence; such leaders are more likely to build learning communities in which students and teachers collaboratively engage in the learning process. These leaders foster students to exploit and leverage their natural ability via ongoing effort, improvement and perseverance. When students adopt a similar mindset to that of leaders possessing a growth mindset, they tend to enjoy more success in both their personal and academic lives. They also regard challenges and risks as opportunities for growth and view mistakes as learning opportunities. It is posited that some students with a growth mindset experience more success during adversity than they do during periods of calm and relative academic inactivity.

This review has noted that parents often view international schools favorably due to the expectations of high academic standards; such expectations create pressure on international schools to retain key leaders. Moreover, international school leaders with a growth mindset are expected to create an institutional environment that fosters the inclusion of diverse cultures and ethnicities (Keung & Rockinson-Szapkiw, 2013; Uddin et al., 2017). Students are encouraged to learn other languages and about other cultures; such are viewed as resources of academic enrichment.

This inclusion of cultural diversity requires the construction of an effective mechanism by way of connected curriculums (CC) that are designed to encourage personal professional development both in students and teachers that expand outside of local cultures (Fung, 2017; Tirri et al., 2021). The review verifies that this growth mindset and the resultant personal and academic

development in all institutional stakeholders tends to reduce staff turnover and stimulate students desire to succeed (Keung & Rockinson-Szapkiw, 2013; Uddin et al., 2017). These are constructed to mirror the components found in a growth mindset. The inclusion of such diversity translates to the lowering of barriers between teaching staff, and between teachers and students so that focus is directed at collective academic objectives and performance outcomes instead of just individual achievements. Such a stance should attenuate the incidence of misplaced focus on native-speakerism and other forms of discrimination against minority groups. The inclusion of cultural diversity can serve to foster an institutional environment of trust between stakeholders located within the institutional realm.

While structural walls in international schools are an essential part of the physical institutional infrastructure, such a growth mindset translates into the breaking down of psychological walls throughout the staff and student architecture. This serves to support and validate the concept that the element of trust is a critical component of a productive learning environment within the international school framework, and as such, trust is an important pre-condition to allowing the potential offered by a growth mindset to become a reality. This element of trust should automate collaboration both vertically and horizontally within the academic construct (Tirri et al., 2021).

Leaders with a growth mindset invariably seek to find ways to standardize teaching and learning methods within international schools, and promote the synergy of cognitive, synthesizing, creative, respectful, and ethical minds as a construct of an incremental disposition in which both teachers and students are transformed to focus on effort and learning from errors rather than on temporary goals such as exam results. This translates to teachers who elicit understanding rather than instruct, and students who persevere regardless of perceived risks and setbacks knowing that

as much gain can be extracted from failures as can be from successes. This growth mindset is a learned leadership asset and is not a biological derivative. It should also be noted that this review recognized that there are limitations imposed on the growth mindset in leaders such as the false growth mindset in which leaders may exploit and cause harm to their followers or use their charisma to pursue selfish and self-serving objectives.

The intersection of growth mindset, leadership styles, and international school leadership is a nascent field of study. The popularity of growth mindset continues to increase, and international schools have embraced the concept (Barnett, 2017; Williams 2020). The proposed study seeks to bring together and build on current growth mindset theory and leadership styles to determine whether school leaders' growth mindset can be predicted from their leadership style.

CHAPTER THREE

METHODOLOGY

Design and Procedure

The purpose of this study was to determine whether there was a relationship between international school leaders' growth mindset and their preferred leadership style. The study attempted to answer the overarching research question: Do international school leaders who embrace a growth mindset have a preferred leadership style? This study focused on members of Senior Leadership Teams (SLTs) who manage international schools and middle-level leadership team members serving in these institutions.

The proposed quantitative study used best-practice online survey research methods to collect and self-report the data pertaining to international school leaders' perceptions concerning their own style of leadership and if as leaders they are likely to possess a growth mindset. This self-report data was used to answer the four research questions. Creswell (2003) describes survey research as attempting to describe a population's opinions, experiences, behaviors, thoughts, and attitudes from a sample drawn from that population. Studies have asserted that online surveys can be cost-effective and timely, but there can be sampling and validity concerns (Simon & Goes, 2018; Wright, 2006).

<div align="center">

Instrumentation and Survey Design

</div>

The Survey Instrument

This quantitative study implemented a survey instrument constructed from two self-report Likert-type scales, the Implicit Theory of Intelligence Scale (ITIS) and the Multifactor Leadership Questionnaire (MLQ 5X). Demographic items were included as co-variates.

The ITIS is an eight-item scale measuring cognitive competencies associated with Dweck's (1999) characterization of the incremental (growth mindset) and entity (fixed mindset) conceptions of intelligence. The 45-item MLQ 5-X Leader Form measures the leadership traits associated with transformational, transactional, and laissez-faire leadership styles (Avolio & Bass, 2004, Mind Garden, 2021). How leaders responded to this instrument revealed their leadership style preferences. [5]

The survey (Appendix B) was administered using Qualtrics and organized into six sections: 1) Introduction; 2) General instructions; 3) Informed consent form; 4) Demographic variables; 5) ITIS scale; and 6) the MLQ 5X scale. The introduction section explained the purpose of the study and that the survey would take fifteen minutes to complete. The general instructions for completing the survey, the informed consent form, and the demographic survey section comprised the second, third, and fourth sections. The fifth and sixth sections were the MLQ 5-X instrument and ITIS instrument. The ITIS instrument consists of eight questions. In aggregate, the surveys consisted of 53 questions. The MLQ 5-X scale is copyrighted by MindGarden™ and a copy of the letter granting permission to use the survey can be found in Appendix B.

Reliability and Validity Statistics

The MLQ 5-X survey Leader form consists of 45 self-rated questions with four Likert-scale answer choices. Based on extensive testing. the MLQ 5-X and ITIS have been found to consistently and accurately measure the constructs of interest, mindset and leadership style respectively. When scoring the MLQ 5-X There are 15 items in the MLQ, with nine leadership

---

[5] The MLQ-5X rater form that is commonly used by subordinates to measure their perceptions of their leaders' style preferences will not be used for the study because this study is focused on leaders' self-ratings. In addition, administering the form to subordinates would not be feasible or practical.

scales and three leadership outcome scales, along with the main three leadership styles transformational, transactional, and passive/avoidant.

With reference to the MLQ, Antonakis (2001) states that "the structural model of the MLQ appears to satisfy the requirement for a validated instrument as indicated by the model fit and how it compared to the other models" (p. 223-224). Antonakis's 2001 study indicated that the MLQ-5X was revised many times after its initial use by Bass and Avolio (1995). According to Antonakis (2001), revisions were the result of critiques of the construct validity as there were differing results related to what factors to include in the model. Antonakis (2001) examined 18 independent studies with a total sample size of 6,525, the results of which showed the factor structure for the instrument was best represented by nine single-order factors. Confirmatory Factor Analysis, used to determine how measurement models fits the data, by Antonakis tested and confirmed the validity of the MLQ 5-X.

For reliability the MLQ 5-X's Cronbach Alpha, a measure of internal consistency, was found to have a score was .86, which was above the acceptable standard that Nunnally (1967) reported of anything greater than .070 (Muenjohn & Armstrong, 2008). Muenjohn (2008) confirmed that the validity, in the form of Confirmatory Factor Analysis, with an adjusted goodness of fit index (AGFI) of .78, and reliability of the MLQ 5-X as revised by Avolio (2004) can provide confidence to researchers when using this instrument.

Although reproducing the MLQ 5-X scale in its entirety is forbidden due to copyright, the scale is measured by the following: 0 = *Not at all* 1 = *Once in a while* 2 = *Sometimes* 3 = *Fairly often* 4 = *Frequently, if not always* (Bass et al.). Sample items from the MLQ 5- X Self Form consist of the following: 1) I talk optimistically about the future; 2) I spent time teaching and coaching; 3) I avoid making decisions (Bass et al.).

The Implicit Theory of Intelligence scale (ITIS) – Self Form for Adults (Appendix A) is an eight-item instrument with six Likert-scale answer choices in the form of, 1) Strongly Agree; 2) Agree; 3) Mostly Agree; 4) Mostly Disagree; 5) Disagree, 6) Strongly Disagree. The ITIS contained four questions regarding incremental theory and four questions regarding entity theory that assess the survey respondents' beliefs about the malleability or fixed nature of intelligence.

Construct validity was shown across five validation studies, and relationships between the implicit theory measures were related to other implicit theory measures and predicted through the scale (Dweck et al., 1995). Review of the eight-point scale used in the ITIS was found to have the same validity as the three-point scale (Levy et al., 1998). A multiple regression model was conducted and the implicit person theory was regressed on three other implicit theory models. This relationship in the validation study was found to be high (R^2 =.78), (Dweck et al., 1995). Regarding the reliability of the ITIS internal consistency was reported at Cronbach's Alpha of 0.78, which is above the accepted cut-off, and a test-retest correlation of 0.77 (Blackwell et al., 2007). The reliability of the scale was also found to be above accepted cut-off of a range of Cronbach's Alpha from 0.82 to 0.97 (Dweck et al., 1995). De Castela and Byrne (2015) found the ITIS to have a combined Cronbach's Alpha for the general entity and incremental scales of .87. For this study the scale was scored by the following guidelines: scores of less than three indicate a "fixed mindset"; whereas scores of four or more indicate a "growth mindset"; whereas scores between 3.3 and 3.7 were taken as "borderline" (Blackwell et al., 2007, Dweck, 1999). A borderline score means that the participant is neither committed to fixed nor growth. Those scoring in this borderline category were kept in the study as part of a continuous mindset score that was used in the later regression model as part of a combined 'Growth' variable. Scores on the growth mindset from respondents' frequency ranged 1.88 (fixed) to 6.0 (growth), with most respondents scoring in the growth range.

The Multifactor Leadership Questionnaire (MLQ)

Burns' thinking about leadership influenced many other leadership scholars, particularly Bass, who along with Avolio developed the Multifactor Leadership Questionnaire (Bass & Avolio, n.d.), a tool to measure whether leaders tended to employ a transactional, transformational, or laissez-faire approach to leadership. The MLQ is a self-report instrument allowing people to gauge their own leadership styles. Also known as the MLQ 5X-Short, the research instrument is comprised of 45 Likert-type items about leadership behaviors (Bass, 1994). Avolio and Bass researched the validity of the MLQ and found it to be valid in predicting transformational, transactional, and laissez-faire leadership styles (Atwater et al., 1994; Avolio et al., 1996). As justification for using the MLQ in this study, research using the MLQ has also shown that transformational leadership improves employee retention rates (Avey et al., 2008; Tian, et al., 2020). Lowe et al.'s (1996) research found that transformational and transactional leadership practices were complimentary, as well as effective in workplaces. Judge and Piccolo (2004) suggested that leaders whose behavior is oriented more towards transformational leadership are more effective than those who are oriented more towards a transactional leadership style.

Implicit Theories of Intelligence Scale

The Implicit Theories of Intelligence Scale (ITIS) grew out of the work on the implicit theory of intelligence by Dweck & Leggett in 1988 (Dweck & Leggett, 1988). Dweck introduced six separate Implicit Theory Measures, including the version used in this study, the Implicit Theories of Intelligence Scale – Self Form for Adults, in her book *Self Theories: Their Role in Motivation, Personality, And Development*, which were all based on the original scale that she and her colleagues devised (Dweck, 1999). Since the publication of this work these scales have been utilized in studies by researchers on children and adults seeking to ascertain a respondent's

particular mindset. The earlier scales used by Dweck and her colleagues were only for entity theory items, but they were able to later add incremental items as well (Dweck, 1999). Although Dweck points to at least four separate studies conducted in the 1990's, an email regarding the ITIS scale, particularly on its reliability and validity was sent to Dr. Dweck at Stanford University but no reply was received by the author of the study. The goal of the email was to discuss the scale further with Dr. Dweck, and to ascertain if she and her colleagues were working on perhaps updating these scales that were published in 1999. The ITIS scale has been adapted and conducted in studies worldwide on children and adults (Abd-El-Fattah & Yates, 2013; Da Fonseca et al., 2007; Garcia-Cepero & Betsy, 2009; Troche & Kunz, 2020). A meta-analysis of 46 studies based on the Implicit Theories of Intelligence (ITI) was conducted and the original, non-adapted scales by Dweck were found to have a strong moderating link between ITI and achievement by the 412,022 students covered in the reviewed studies (Costa & Faria, 2018).

Response Burden

Members of the Senior Leadership and Middle Leadership teams in international schools are extremely busy with the day-to-day rigors of their jobs. Managing complex institutions and students, parents, teachers, and staff through a pandemic with their various emotional and pedagogical needs is a time-consuming task. The burdens on time and energy are exhaustive. Adding to these obligations are often burdensome accreditation standards, bureaucratic paperwork from local, federal, and international government and examination boards, the demands of the school board of directors, and financial housekeeping.

Asking extremely busy international Senior leaders and middle managers to expend energy and attention to complete fifteen to twenty minutes worth of surveys in the form of a demographic survey, the ITIS, and MLQ 5-X places an added layer of burden on them.

Response burden is defined as "the effort required by the patient to answer a questionnaire" (Rolstad et al., 2011). In this study the patients are international school leaders, and their response burden is not only affected by the survey size and respondent's present emotional state, but also by low motivation and negative perceptions of the survey (Adamu et al., 2014; Beatty et al., 2020). In order to mitigate the response burden, it was imperative to give ample and detailed directions to the respondents in the introduction to the survey.

Sample Rational and Procedure

Effort will be directed at specifically defining the population group to which online surveys are allocated and ensuring that biased participants are avoided and not included in this study. Selection will be directed towards using a population that is truly representative or meaningful as a means to inform the study. The target population should be clearly defined as absent of participant bias to ensure that the survey outcomes can be viewed as authentic and valid. The international school leaders targeted to participate in this study were middle managers and senior leaders. Senior leaders, as members of a school's Senior Leadership Team (SLT)[6] are top level managers who organize the strategic vision of a school and the day-to-day operations. A middle manager is anyone who is considered a line manager leading a team of teachers.

The sampling technique was one of convenience in which the guiding criteria was that the sample was extracted from a population group of international school leaders in which participants were relatively easy to find and willing to take part in the study thereby removing the need for probabilistic random sampling.

---

[6] The National College for Teaching & Leadership denotes senior leaders as: Headteachers (Principals), Assistant Headteachers (Assistant Principals), Curriculum Leaders, and other leaders who originate a school's strategic plan.

Building the Sample

A four-step process was used to implement the study. First, the study was announced and briefly described indicating a request to participate would be forthcoming. Then, a week after the first announcement was made the official request and the link were be posted. A follow-up reminder was sent a week later and this was repeated again a week later as there were insufficient numbers, and that there was an announcement that the participant recruitment would be closed at a certain date.

Recruitment

The study participants were recruited in four ways: social media postings, emails to international school chains, individual international schools, and international school accreditation groups.

Postings about the study were made on several social media sites including LinkedIn and Facebook. Postings were made to LinkedIn in May and August 2021, and to Facebook in August. The content of the postings was a variation on the survey email draft found in Appendix E.

There was an introductory email including a description of the study as well as a link to the survey sent to major English language medium-of-instruction international school chains, such as Quality Schools International (QSI); Nord Anglia; Cognita; GEMS Education; International School Partnership (ISP); International Schools Group (ISG); and Kinderworld, along with a request to distribute the information and link through their communication networks. After the study was announced, it was briefly described so that the potential participants understood the primary concept and rationale behind the study.

The schools were contacted directly through both an initial and a follow-up email. To facilitate contact with the schools, the study necessitated a search for the email addresses of

institutions that were available on school websites. Schools were contacted directly. The network hub also helped with the contacting. It was anticipated that one or both contacts would be shared with each school's senior leadership team members and middle managers in the school. After the study was announced it was briefly described so that the potential participants understood the primary concept and rationale behind the study. A follow-up reminder was be sent a week later and this was repeated again a week later as there was insufficient numbers, and that there was an announcement that the participant recruitment would be closed at a certain date.

- International school accreditation groups, such as the Council of International Schools (COIS), the Council of British International Schools (COBIS), the New England Association of Schools and Colleges (NEASC), were emailed with an introduction to the study and the study was briefly described so that the potential participants understood the primary concept and rationale behind the study. A follow-up reminder was sent a week later as a reminder to recipients in these accreditation groups. This was repeated again a week later as there were insufficient numbers, and that there will be an announcement that the participant recruitment would be closed at a certain date.

Data Collection and Analytical Strategy

Procedurally, the encrypted raw primary data collected through Qualtrics was uploaded into the IBM SPSS statistical analysis software for analysis. The survey data from the two international school leadership groups, the senior leadership team members, and the middle leadership team members, were categorized and grouped. Further groupings were broken down along with their survey output data from the completed MLQ 5-X and ITIS instruments. The further groupings consisted of demographic data including gender, ethnicity, geographic location,

highest degree earned, years of work experience in K-12 education, years of experience in the current educational leadership/administrative role, and the respondent's current job title.

Both the descriptive statistical analysis and the multiple regression analysis were performed with IBM SPSS software.

The first two research questions were analyzed utilizing descriptive statistics. Descriptive statistics used the quantitative data collected from the survey to characterize the entire data grouping. By utilizing descriptive statistics, the size, mean, and standard deviation of the numbers was categorized to address the first two research questions.

In descriptive statistics, as the size of sample increases so does the uncertainty pertaining to the mean decrease toward zero, and the range relates to the differences between the data's smallest values and largest values. While the mean of the numbers concerns the average level seen in specific data, the mode of this data pertains to the value that most frequently appears, and the median of the numbers is the number that is in the middle between the higher and lower figures. The standard deviation of the data numbers pertains to the variance in how the data is distributed around its mean. A Chi-Square test of association, or Pearson's chi-square test, was conducted to determine if there was any association between the two growth variables, fixed and growth.

Independent sample t-tests were used as these types of t-tests are designed to compare the means found in two independent groups as a way to determine whether there are statistically significant differences between the populations. A simple independent sample t-test was used to compare the mean scores on the MLQ 5-X and ITIS between international school senior leaders and middle managers. Independent sample t-tests were conducted in which the two groups of the senior leadership team members and middle managers used the results to answer the third research question, this as a way to determine whether there were any differences between senior and middle

managers' responses. The fourth research question was answered using multiple regression analysis, a statistical method that is commonly utilized to forecast a dependent variable's value and such value is calculated by determining the values of two or more independent variables. The model that was tested treated mindset variables as the study's dependent variable. The three different leadership styles, along with the demographic variables were treated as independent variables.

As co-variates, multiple regression analysis of the survey data, in conjunction with the descriptive statistical analysis data, allows the study to illustrate the predicted value of a variable, based on the value of two or more variables. The level of association of each independent variable in the regression model with the dependent measure was treated as a null hypothesis during the multiple regression analysis process. There is some indication in the literature (see, for example, Caniëls et al., 2018; Hildrew, 2018; Kale, 2013) that transformational leadership is most likely to be associated with an incremental theory or a growth mindset orientation, and the study will explore this hypothesis. However, the study also assessed whether there were other variables in the model, including the other two leadership style preference measures that were associated with increased or decreased growth mindset scores.

The model that was tested treated mindset variables as the study's dependent variable and constructed the three different leadership styles, along with the demographic variables asked about in the survey as independent variables.

Procedurally, the encrypted raw primary data collected through Qualtrics was uploaded into the IBM SPSS statistical analysis software for analysis. The survey data from the two international school leadership groups, the senior leadership team members, and the middle leadership team members, was categorized and grouped. Further groupings were broken down

along with their survey output data from the completed MLQ 5-X and ITIS instruments. The further groupings consisted of demographic data including gender, ethnicity, geographic location, highest degree earned, years of work experience in K-12 education, years of experience in the current educational leadership/administrative role, and the respondent's current job title.

Both the descriptive statistical analysis and the multiple regression analysis were performed with IBM SPSS software.

Response Rate

The study had a target group of international school senior leaders and middle manager leaders from around the world. The study only considered these two groups, both of which had a wide range of job titles and descriptions. The target population represented a diverse range of international school leaders from a variety of curriculums. Convenience sampling was utilized to gather respondents for the survey. Respondents consented to the online Qualtrics based survey and then were instructed to complete the demographic questions, and the two self-report Likert-type scales, the Implicit Theory of Intelligence Scale (ITIS) and the Multifactor Leadership Questionnaire (MLQ 5X).

International schools and organizational email addresses were harvested from Google, LinkedIn, and other social media sites such as Facebook and Twitter. There were a total of 92 survey introduction and promotional emails sent to individual international school leaders as well as to international schools and organizations. None of the emails were returned due to incorrect or inaccurate addresses. Survey promotional and introductory posts were written and posted to targeted international school leadership groups on LinkedIn and Facebook. There were four targeted promotional posts on LinkedIn and Facebook, as well as two general LinkedIn posts to

garner additional survey respondents. The final count of respondents in Qualtrics was over 2,000. Immediately there were red flags raised as to the insufficient number of respondents.

In order to increase the response rate, the University of San Diego School of Leadership graciously offered $5 Amazon gift cards to respondents. The inducement of the 150 gift cards in order to increase respondent participation led to an uptick in respondents who were not international school leaders. The respondents were instructed to email an official University of San Diego email address to recover the gift card reward. The email address was spammed with over 2,000 emails requesting their reward. An Internet Protocol (IP) address check was conducted on Qualtrics that revealed most of the respondents to be working in concert to gain a large amount of gift cards. Of the 150 gift cards issued for the survey only 11 were redeemed from respondents using their official school email addresses.

There were 122 surveys that were accepted for the final analysis. After discussions with the dissertation committee, the researcher and the committee came up with a framework for weeding out the fraudulent responses. It was agreed upon to include cross referencing of gift card emails and triangulate them with survey respondent's IP address and response dates and times. 34 surveys were deemed to be incomplete, due to the respondents only filling in a small portion of the questions such as partial competition of demographic, ITIS, or MLQ 5-X questions. Therefore, out of the 2,267 surveys initially completed, 122 of the usable data set were completed for a response rate of 18.58%. Data missing from the remainder of the cases was rare ($< .02$ per cent). In the case of missing data, a common and accepted remedy was applied whereby the blank data in the variable was replaced with the variable's mean (Curley et al., 2017). This practice is commonly known as 'imputation' of the data.

The surveys were anonymously collected via Qualtrics, an online survey and statistical website. To conduct analysis, the survey data was downloaded from Qualtrics. The Excel spreadsheet data was uploaded to the statistical analysis software IBM SPSS. The statistical analysis were run by the researcher through SPSS utilizing descriptive statistics and regression analysis.

CHAPTER FOUR

FINDINGS

The purpose of this study was to determine if there is a relationship between exhibiting a growth mindset, on the one hand, and an international school leader's preferred leadership style, on the other. Survey data from 122 leaders was used to answer the following questions:

1. What is the extent to which international school senior leadership team members and middle managers exhibit either a growth (incremental) mindset or a fixed (entity) mindset?

2. What is the preferred leadership style of international school senior leadership team members and what is the preferred leadership style of international school middle managers?

3. If the responses of senior and middle management leaders differ to either of the first two research questions, are the differences statistically significant?

4. To what extent are the differing leadership style preferences of both senior and middle managers associated with exhibiting a growth mindset?

In this chapter there will be an exploration of the main findings that help answer the four research questions. The written findings for each research question are accompanied by quantitative data in tabled format. The organization of the chapter starts with a sample demographics explanation illustrated in Tables 1 and 2. This is followed by a discussion of the first research question which is explained by a discussion of references to Tables 3 through 5. Research question 2 is answered by table 6 and is also explained by a discussion of the presented data. Following that, research question 3 is answered by a discussion of the data from Tables 7 and 8. Finally, research question 4 is answered by a discussion of the data from Tables 9 and 10. All four research questions were answered using either descriptive or inferential statistical methods that were analyzed with IBM SPSS software. The final two questions, and especially question four,

are considered the most important findings of the study. A conclusion regarding the contents of the chapter follows the final research question.

Sample Demographics

Table 1 displays the frequency counts for the demographic variables. There were somewhat more male leaders (53.3%) compared to female leaders (46.7%). Sixty-five percent of the sample were Caucasian. The most common locations were North America (28.7%), Europe (24.6%), and Asia (21.3%). Most (87.7%) had a graduate degree with 28.7% also having a PhD/EdD/JD. Years working in education ranged from 1-5 years (11.5%) to more than 20 years (32.0%) with a 'Median for Grouped Data' formula yielding a median number of years $Mdn =$ 16.93 for Years working in education. Years of leadership experience ranged from 1-5 years (32.8%) to more than 20 years (4.1%) with a 'Median for Grouped Data' formula yielding a median number of years $Mdn = 7.561$ for Years of leadership experience. Years in their current role ranged from less than one year (7.4%) to more than ten years (8.2%) with the median number of years being $Mdn = 3$ years (see Table 1).

Table 1

Frequency Counts for the Demographic Variables

Variable	Category	*n*	%
Gender			
	Female	57	46.7
	Male	65	53.3
Race/Ethnicity			
	African	8	6.6
	Caucasian	79	64.8
	Asian	15	12.3
	Other	20	16.4
Continent			
	North America	35	28.7
	Europe	30	24.6
	Middle East	14	11.5
	Asia	26	21.3
	Other	17	13.9
Educational Level			
	BA/BS	15	12.3
	MA/MS	72	59.0
	PhD/EdD/JD	35	28.7
Years Working in Education			
	1-5 years	14	11.5
	6-10 years	23	18.9
	11-15 years	19	15.6
	16-20 years	27	22.1
	> 20 years	39	32.0
Years of Leadership Experience			
	1-5 years	40	32.8
	6-10 years	41	33.6
	11-15 years	25	20.5
	16-20 years	11	9.0
	> 20 years	5	4.1
Years in Current Role			
	<1 years	9	7.4
	1-5 years	85	69.7
	6-10 years	18	14.8
	> 10 years	10	8.2

Table 2 displays the frequency counts for the leadership variables. Seventy-two percent of the sample were senior leaders. The most common job titles were head of school or equivalent (28.7%), deputy head of school or equivalent (17.2%), and department head or equivalent (15.6%).

Table 2

Frequency Counts for Leadership Variables

Variable	Category	n	%
Leadership Level			
	Middle	34	27.9
	Senior	88	72.1
Leadership Role			
	Head of school or equivalent	35	28.7
	Director	12	9.8
	Director teaching and Learning	14	11.5
	Deputy head of school or equivalent	21	17.2
	Dean or counselor	3	2.5
	IB Coordinator	8	6.6
	Department head or equivalent	19	15.6
	Other	10	8.2

Answering the Research Questions

Research Question 1: A Growth or Fixed Mindset?

What is the extent to which international school senior leadership team members and middle managers exhibit either a growth (incremental) mindset or a fixed (entity) mindset?

The first research question examined the extent to which international school senior leadership team members and middle managers exhibited either a growth (incremental) mindset or a fixed (entity) mindset? To answer this question, Table 3 displays the frequency counts for the growth category. Inspection of the table found 64.8% had a growth mindset and another 29.5%

had a borderline mindset (see Table 3). Borderline is construed as undetermined as to exhibiting either a fixed or growth mindset.

Table 3

Frequency Counts for Growth Category

Variable	Category	*n*	%
Growth Category			
	Fixed	7	5.7
	Borderline	36	29.5
	Growth	79	64.8

To examine whether the distribution of growth mindset varies between middle and senior managers Table 4 displays the chi-square test comparing the growth category with the leadership level. Inspection of the table found similar percentages of participants to self-report as having a growth mindset based on the leadership level (61.8% versus 65.9%). The difference was not significant, χ^2 (2, $N = 122$) = 1.24, $p = .54$, Cramer's $V = .101$ (see Table 4). Very few international school leaders ($N = 7$) self-reported as exhibiting a fixed mindset.

Table 4

Chi-Square Test for Growth Category by Leadership Level

	Middle		Senior	
Growth Category	*n*	%	*n*	%
Fixed	1	2.9	6	6.8
Borderline	12	35.3	24	27.3
Growth	21	61.8	58	65.9

Note. χ^2 (2, *N* = 122) = 1.24, *p* = .54. Cramer's *V* = .101.

To provide a bit more granularity to the comparison of growth mindset, Table 5 displays the results of the *t* test for independent means comparing the growth score based on the leadership level. Similar growth scores were found between the two groups (*M* = 3.26 versus *M* = 3.24). This difference was not significant, *t*(120) = 0.13, *p* = .90 (see Table 5).

Table 5

t Test for Growth Score Based on Leadership Level

Variable	Level	*n*	*M*	*SD*	*t*	*p*
Growth					0.13	.90
	Middle	34	3.26	0.76		
	Senior	88	3.24	0.89		

Note. Ratings based on five-point metric: 0 = *Not at all* to 4 = *Frequently, if not always*

Mindset Data Discussion

The findings from the mindset-based research question reported a large number, almost 65%, of survey respondents self-reporting as exhibiting a growth mindset. Very few, 5.7%, of the senior and middle international school leaders reported having a fixed mindset. Those international school leaders self-reporting as borderline, which is neither conclusively growth nor fixed mindset, reported at 29%. In terms of the data analyzed for mindset between senior and middle leaders no statistical significance was found in terms of their self-reported mindset. The mindset scores of both international middle and senior leaders were found to be quite similar.

Research Question 2: Preferred Leadership Style Preferences

My second research question identified the preferred leadership style of both international school senior leadership team members middle managers? Tables 6 displays the 15 MLQ-5X Full Range Leadership model scores sorted by category for the middle level and senior level leaders, respectively. These leadership component ratings were based on a five-point metric: 0 = *Not at all* to 4 = *Frequently, if not always.* For the middle level leaders, the preferred Full Range Leadership component styles were the leadership outcome satisfaction ($M = 3.01$), and the transformational leadership subscales individual consideration ($M = 2.99$), and inspirational motivation ($M = 2.95$). For the senior level leaders, the preferred Full Range leadership component styles were all transformational leadership-based subscales in the form of inspirational motivation ($M = 3.24$), idealized influence (behavior; $M = 3.17$), and intellectual stimulation ($M = 3.11$; see Table 6). All of these Full Range Leadership styles are part of the "four I's" and are linked to a transformational leadership style.

Table 6

MLQ Scale Scores Sorted by Mean Score. Middle Level Managers and Senior Level Managers

MLQ Score	Middle Level Managers		Senior Level Managers	
	M	*SD*	*M*	*SD*
Transformational Leadership	2.85	.05	3.1	0.52
Idealized Influence (Attributed)	2.56	.074	2.9	0.57
Idealized Influence (Behavior)	2.85	0.52	3.17	0.65
Inspirational Motivation	2.95	0.55	3.24	0.58
Intellectual Stimulation	2.9	0.51	3.11	0.55
Individual Consideration	2.99	0.69	3.07	0.67
Transactional Leadership	2.5	0.59	2.35	0.64
Contingent Reward	2.63	0.66	2.86	0.64
Management-by-exception (Active)	2.37	0.73	1.85	0.92
Passive / Avoidant	0.97	0.75	0.78	0.62
Management-by-exception (Passive)	1.21	0.83	0.91	0.68
Laissez-faire Leadership	0.73	0.77	0.64	0.68
Extra Effort	2.68	0.58	2.84	0.69
Effectiveness	2.93	0.61	3.1	0.63
Satisfaction	3.01	0.61	3.09	0.59

Note for Middle Level Managers. n = 34.   *Note for Senior Level Managers. n* = 88.

Note. Ratings based on 5-point metric: 0 = *Not at all* to 4 = *Frequently, if not always*

Leadership Style Preferences Discussion

The top three self-reported MLQ 5-X subscales for middle managers were satisfaction (*m* = 3.01), individual consideration (*m* = 2.99), and inspirational motivation (*m* = 2.95). For senior leaders the top three were inspirational motivation (*m* = 3.24), idealized influence (behavior) (*m* = 3.17), and intellectual stimulation (*m* = 3.11). The self-reporting for the top three leadership subscales varied mainly due to the transactional and transformational leadership outcome subscale

of satisfaction self-reported by middle managers as the other top subscales were part of strictly transformational leadership styles.

Research Question 3: Differences Between Senior Leaders and Middle Managers

My third research question investigated the extent to which any differences in the preferred leadership styles between senior and middle-level managers were statistically significant. Table 7 displays the results of the independent sample t-tests comparing the two leadership levels for the 15 MLQ 5-X scale scores. Inspection of the table found six of twelve scales to be significantly different between the groups. There are 15 items in the MLQ, with nine leadership scales and three leadership outcome scales, along with the main three leadership styles transformational, transactional, and passive/avoidant. The most significant differences were that senior leadership had high scores for the transformational leadership subscale idealized influence (attributed), $t(120)$ = 2.74, p = .007 and significantly lower scores for the transactional leadership subscale management-by-exception (active), $t(120)$ = 2.95, p = .004 (see Table 7). Idealized influence (attributed) is under the umbrella of a transformational leadership style, whereas management-by-exception is a construct of the overall transactional leadership style.

Senior leaders had significantly higher scores for Transformational Leadership $t(120)$ = 2.38, p = .02). This finding suggests that senior leaders self-report, and rate themselves as transformational leaders more than middle leaders. Senior leaders also rated themselves higher on the other transformational leader constructs such as idealized influence (attributed), idealized influence (behavior), inspirational motivation, and almost on intellectual stimulation thank middle managers. Senior leaders had significantly lower scores for the transactional leadership subscale of management-by-exception (Active) than their middle level leader counterparts.

Table 7

t Test for Growth Score Based on Leadership Level

Variable	Level	*n*	*M*	*SD*	*t*	*p*
Transformational Leadership					2.38	.02
	Middle	34	2.85	0.50		
	Senior	88	3.10	0.52		
Idealized Influence (Attributed)					2.74	.007
	Middle	34	2.56	0.74		
	Senior	88	2.90	0.57		
Idealized Influence (Behavior)					2.54	.01
	Middle	34	2.85	0.52		
	Senior	88	3.17	0.65		
Inspirational Motivation					2.53	.01
	Middle	34	2.95	0.55		
	Senior	88	3.24	0.58		
Intellectual Stimulation					1.87	.06
	Middle	34	2.90	0.51		
	Senior	88	3.11	0.55		
Individual Consideration					0.55	.58
	Middle	34	2.99	0.69		
	Senior	88	3.07	0.67		
Contingent Reward					1.73	.09
	Middle	34	2.63	0.66		
	Senior	88	2.86	0.64		
Management-by-Exception (Active)					2.95	.004
	Middle	34	2.37	0.73		
	Senior	88	1.85	0.92		
Management-by-Exception (Passive)					2.10	.04
	Middle	34	1.21	0.83		
	Senior	88	0.91	0.68		
Laissez-faire Leadership					0.59	.56
	Middle	34	0.73	0.77		
	Senior	88	0.64	0.68		

Note. Ratings based on five-point metric: 0 = *Not at all* to 4 = *Frequently, if not always.*

Table 7 *Continued*

Variable	Level	*n*	*M*	*SD*	*t*	*p*
Transactional Leadership					1.17	.25
	Middle	34	2.50	0.59		
	Senior	88	2.35	0.64		
Passive / Avoidant					1.46	.15
	Middle	34	0.97	0.75		
	Senior	88	0.78	0.62		
Effectiveness					1.39	.17
	Middle	34	2.93	0.61		
	Senior	88	3.10	0.63		
Satisfaction					0.63	.53
	Middle	34	3.01	0.61		
	Senior	88	3.09	0.59		
Extra Effort					1.26	.21
	Middle	34	2.68	0.58		
	Senior	88	2.84	0.69		

Note. Ratings based on 5-point metric: 0 = *Not at all* to 4 = *Frequently, if not always.*

Senior and Middle Leader Differences Discussion

The question becomes, "are there significant differences between senior and middle leaders in terms of their leadership levels?". The data shows that the differences between the self-reported mindsets of international school senior and middle leaders was not statistically significant. The data does however show that there were a few differences between the two leadership cohorts in terms of the levels of leadership in terms of the 15 Multifactor Leadership Questionnaire (MLQ) scores. The main differences were in high scores for senior leaders self-reporting as the transformational leadership subscale idealized influence, and lower scores compared to the middle leader cohort for management-by-exception (active), a transactional leadership subscale.

Research Question 4: Relationship Between Leadership Style Preferences and a Growth Mindset

My final research question examined the extent to which variation in growth mindset could be explained by the differing leadership style preferences of both senior and middle managers. Table 8 displays the multiple regression model predicting growth mindset based on the three classic leadership scales (transformation, transactional, laissez-faire) and their leader level (1 = middle, 2 = senior). Inspection of the table found the overall model to be significant (p = .001) and accounts for 19.7% of the variance in the growth mindset score. Inspection of the table found the only significant predictor to be a negative relationship between growth mindset and laissez-faire leadership (β = -.43, p = .001) (see Table 8).

Table 8

Multiple Regression Model Predicting Growth Based on Leadership Scores and Leadership Level. Entire Sample.

Source	B	SE	β	t	p
Intercept	4.60	0.55		8.41	.001
Transformational Leadership	0.06	0.16	.04	0.38	.70
Transactional Leadership	-0.02	0.12	-.02	-0.18	.85
Laissez-faire Leadership	-0.52	0.11	-.43	-4.59	.001
Leader Level	-0.08	0.16	-.04	-0.51	.61

Note. Full Model: F (4, 117) = 7.16, p < .001. R^2 = .197.

As an additional exploratory analysis, Tables 9 and 10 display the stepwise multiple regression models predicting growth mindset based on the 21 candidate variables (15 MLQ scores plus six demographic variables. These models were conducted for the 34 middle level managers (Table 9) and the 88 senior level managers (see Table 10).

As shown in Table 9, among the middle-level managers only one leadership style variable, passive-avoidant, was significant ($p = .001$) and no demographic variables were significant; however, the model accounted for 46.7% of the variation in the growth mindset score. Interestingly, the coefficient associated with passive-avoidant was negative, suggesting that those exhibiting this leadership style were less likely to have a growth mindset.

In Table 10 for the senior level manager sample, the two-variable significant ($p = .001$) and account for 19.5% of the variance in the growth mindset score. Based on the 21 candidate variables, inspection of the table found negative relationships between growth mindset and laissez-faire leadership ($\beta = -.40$, $p = .001$) as well as contingent reward ($\beta = -.22$, $p = .03$ (see Table 10).

Table 9

Multiple Regression Model Predicting Growth Based on Leadership Scores and Leadership Level. Stepwise Regression for Middle Managers Only.

Source	B	SE	β	t	p
Intercept	4.93	0.16		30.90	.001
Passive / Avoidant	-0.69	0.13	-.68	-5.30	.001

Note. Full Model: $F (1, 33) = 28.06$, $p < .001$. $R^2 = .467$. Candidate variables = 21

Table 10

Multiple Regression Model Predicting Growth Based on Leadership Scores and Leadership

Level. Stepwise Regression for Senior Managers Only.

Source	B	SE	β	t	p
Intercept	5.43	0.41		13.28	.001
Laissez-faire Leadership	-0.52	0.13	-.40	-4.10	.001
Contingent Reward	-0.30	0.14	-.22	-2.22	.03

Note. Full Model: $F (2, 85) = 10.30$, $p < .001$. $R^2 = .195$. Candidate variables = 21.

Leadership Style Preferences and Growth Mindset Relationship Discussion

The final research question, which also contains the most important findings of the study, the data illustrates a significant negative statistical difference between those respondents self-reporting more of a growth mindset and laissez-faire leadership. This important finding means that the higher international school leaders score on mindset the less likely they are to self-report as laissez-faire leaders. Further explorations into the relationship between leadership style preferences and growth mindset isolated the middle level and senior level leaders. International school middle level leaders were discovered to have a negative statistical relationship between growth mindset and passive/avoidant leadership. Senior level leaders were found to have a negative statistical relationship between mindset and laissez-faire leadership, as well as a negative relationship between mindset and a transactional leadership subscale contingent reward.

Conclusion

This chapter covered the demographic, mindset, and leadership style analysis of the study. There will be a contextualized discussion of the findings in the following chapter. The

demographic data suggests that out of 122 international school middle and senior leader respondents to the survey, there were somewhat more males than females, and 65% of respondents were Caucasian. Almost three-quarters of the respondents were from either North America, Asia, or Europe, and the surveyed school leaders averaged about seven and a half years for years of leadership experience. Most of the surveyed leaders, 72%, were senior leaders rather than middle leaders.

The data analysis for research question 1 regarding mindset revealed that international school senior and middle leaders self-reported as largely exhibiting a growth mindset. There was no statistical difference between middle and senior leaders in terms of self-reported mindset. Similar growth scores were found between the two targeted cohorts of the study.

The preferred leadership style for the two main cohorts, international school senior and middle leaders, and their styles were fairly similar, as both cohorts self-reported largely transformational leadership styles as their preferred leadership style. The only difference in the top three reported were that middle managers preferred a transaction and transformational leadership outcome on the Full Range Leadership of satisfaction.

The research question regarding differences between senior leaders and middle managers yielded results that suggested that senior leaders self-reported higher for the transformational leadership subscale idealized influence, whereas the middle managers self-reported more for the transactional leadership subscale management-by-exception (active).

The final research question, which is also the centerpiece of the study, revolved around the multiple regression and stepwise regression analysis of the relationship between leadership style preferences and growth mindset between the middle and senior leadership cohorts. The main

finding of the study indicates that there is a negative relationship between higher growth scores and laissez-faire leadership. This finding suggests that the higher the growth mindset score, the less likely a leader will exhibit a largely laissez-faire leadership style. Looking into the differences between the two cohorts, both reported that the higher their mindset scores the less likely they would have laissez-faire or passive/avoidant leadership styles, whereas senior leaders also exhibited a negative statistical relationship between mindset scores and the transactional leadership subscale contingent rewards. As stated in the first paragraph of this conclusion, a contextualized analysis of these findings can be found in the following, final chapter of this study.

CHAPTER FIVE

DISCUSSION

This chapter discusses the study's overall findings regarding the four research questions, and offers several recommendations based on those findings. Although the study could not conclusively determine whether an international school leaders preferred leadership style was directly tied to a growth mindset, what the study could determine was if an international school leader exhibited a largely laissez-faire leadership style it would be reasonable to infer that they most likely exhibited more of a growth mindset.

The purpose of this study was to determine if there is a relationship between exhibiting a growth mindset, on the one hand, and an international school leader's preferred leadership style, on the other. Survey data from 122 leaders was used.

The study attempted to answer the following questions:

1. What is the extent to which international school senior leadership team members and middle managers exhibit either a growth (incremental) mindset or a fixed (entity) mindset?

2. What is the preferred leadership style of international school senior leadership team members and what is the preferred leadership style of international school middle managers?

3. If the responses of senior and middle management leaders differ to either of the first two research questions, are the differences statistically significant?

4. To what extent are the differing leadership style preferences of both senior and middle managers associated with exhibiting a growth mindset?

The Answers to the Four Research Questions

An initial analysis of the data indicated that 72.1% of the respondents were senior leaders; and of those senior leaders 38.5% were heads of school or equivalent, or directors. The remaining 27.9% of survey respondents would be classified as middle managers. Data from senior leaders and middle managers were analyzed to answer the four research questions listed above. This section of the final chapter of this dissertation briefly summarizes the answers.

A Growth or Fixed Mindset?

The data collected for this study indicated that 64% of survey respondents exhibited a growth mindset. In terms of exhibiting a growth mindset, there was no real statistical difference between the senior (65.9%) and middle leaders (61.8%).

This result was not surprising as it was surmised that most respondents would self-report as exhibiting a growth mindset. Professionals may have a difficult time attaining their positions without being open to growth, or, at the very least, be able to present themselves to others as being open and growth minded throughout their careers. Dr. Carol Dweck, in a study with Daniel Molden, found that amongst children and adults, around 40% of respondents largely exhibit a growth mindset, whereas 40% largely exhibit a fixed mindset, and 20% largely exhibit a borderline response. (Dweck & Molden, 2006). The results from the Dweck & Molden study differ from the results in this study on international school leaders as international school leaders scored around 24% higher on growth mindset. However, a possible reason for the higher self-reported growth mindset scores reported in this study, aside from the possible reasons listed earlier, may be the fact that international school leaders are presumably all highly educated professionals who are already familiar with the ideas associated with the well-known growth mindset theory.

Only seven of the 122 total respondents self-reported responses that indicated they had a fixed mindset. A larger number, 29 percent, responded in ways that put them in the Borderline category. Borderline, in terms of the ITIS mindset instrument, means the respondent is not conclusively determined to be exhibiting either a growth or a fixed mindset.

There was not a statistically significant difference when comparing the growth outcomes of middle and senior leaders. However, it is of interest to note that a higher percentage of international school middle managers self-reported both growth and fixed mindset compared to their senior leader counterparts. Although these comparisons proved to be statistically insignificant, there may be reasons behind even the small difference between them, reasons that, possibly, have to do with the roles played in the organization.

Preferred Leadership Style Preferences

The data for the preferred leadership style preferences for middle and senior leaders in international schools displayed a difference between these leader cohorts. Overall, the senior level managers self-reported as having slightly higher transformational leadership scores than middle leaders whereas middle leaders self-reported as having slightly more of a transactional leadership style than their senior leader counterparts. The traditional and charismatic leaders that Weber discussed in the 1920s gave way to Burn's (1978) and then Avolio and Bass's (1994) even more sophisticated methods of interpreting leadership style preferences over the latter part of the 20th century. One thing that seemingly has not changed in the past century has been for those at the top of an organizational pyramid to identify themselves as being perhaps more evolved as leaders than their subordinates.

Therefore, the senior leaders, maybe unsurprisingly, self-reported their leadership styles as being mainly under the transformational umbrella. Their subordinates may think otherwise of their leadership styles, but they were not consulted for this study. The dominant leadership styles evident in the international school leaders self-reported results suggested that senior leaders viewed themselves as inspirational and motivating, and that they believed they exerted a positive influence while stimulating their followers intellectually. Their subscale scores in these areas were inspirational motivation ($M = 3.24$), idealized influence (behavior) ($M = 3.17$), and intellectual stimulation ($M = 3.11$).

In contrast to senior leaders, the highest score for leadership style for middle managers of international schools was that of satisfaction ($M = 3.01$). Based on middle leaders self-reporting, the results suggest that they worked well with others, and they believed their leadership methods are satisfying to subordinates. Perhaps this is due to the fact that middle managers must directly manage a team more intimately than the senior level participants. This is because middle managers are often directly involved in the day-to-day direct managing of their teams, whereas senior leaders focus on the more macro level side such as finance, legal compliance, and perhaps, even fundraising for the organization. Middle level managers may have to build and maintain strong daily working relationships with their teams in order to get the best performances out of them for their students and to satisfy senior leaders as well as parents. Like their senior leader counterparts, middle managers also scored highly on the transformational leadership constructs of individual consideration (M = 2.99), and inspirational motivation (M = 2.95)

Statistically Significant Differences Between Senior Leaders and Middle Managers

According to the data, the differences between the mindset of international senior and middle leaders were not statistically significant. However, according to the data the most important finding suggested that middle managers may see themselves as more transactional than transformational in terms of their leadership style. The data also suggests that there were meaningful differences between the two cohorts in terms of leadership levels for the 15 MLQ subscale scores.

The data for the leadership styles of middle and senior leaders was significant in six of the 15 scores. The most prominent differences were in the high scores elicited from senior leaders self-reporting for idealized influence (attributed), $t(120) = 2.74$, $p = .007$), a transformational construct, and much lower scores for the transactional construct of management-by-exception (active), $t(120) = 2.95$, $p = .004$. This self-reported data suggests that middle managers are not as likely to see themselves as admired, respected, or trusted when compared to their senior leader counterparts. According to the data, middle managers may see themselves as more transactional than transformational in terms of their leadership style. This style lends itself to middle managers specifying that compliance standards are adhered to and punishing their followers if they should they fail to comply with these given institutional standards. Middle managers may be required, on a daily basis, to deal with tracking mistakes, as well as resolving complaints and failures.

The differences behind this self-report data could be partially explained by the job descriptions pertaining to middle and senior level managers. The middle level manager's job remit translates to their responsibility to oversee their team, and to make sure that their teacher teams follow the rules and regulations of their respective international school. On a daily, or weekly basis, the middle manager may be tasked with keeping track of their teacher teams lesson and unit

plans, and all the paperwork associated with compliance for external school accreditation standards. The middle managers also frequently need to make sure all paperwork for external exams are filed correctly. The need to be a transformational leader when managing seemingly mundane paperwork and compliance issues may be out of sight and mind for the middle manager. This contrasts with the senior leader who delegates such student related compliance and paperwork tasks largely to the middle managers to focus on issues of what can be considered of more global importance by stakeholders such as the institution or school or school group board of directors, local, national, and international authorities as well as parents.

The data indicating that senior leaders are more apt to self-report under the umbrella of transformational leader constructs may also be a feature of their job description. As Weber posited in the early twentieth century regarding charismatic leaders, the senior leaders of an institution may hold themselves up as a talisman for their organization whom their subordinates and the community rally around. Weber's acolytes such as Burns (1978) and Avolio & Bass (1994) describe transformative and transformational leaders, and the data suggests modern international senior leaders at least self-report as aspire in terms of building a culture of respect around them while displaying a sense of power and confidence. This contrasts to the more prosaic, "down in the trenches" self-reported approach of the middle manager who perhaps take a more tactical step-by-step approach with their team members as opposed to a senior leader's perhaps more strategic, macro view of their roles in an international school setting.

Relationship Between Leadership Style Preferences and a Growth Mindset

For the fourth research question, which is the centerpiece of the study, the data from the multiple regression analysis displayed a significant difference in the negative relationship between growth mindset and laissez-faire leadership (β = -.43, p = .001). This suggests that those international school leaders who self-reported as exhibiting a growth mindset tend to not self-report as adopting a laissez-faire leadership style. According to the data, if someone posed the question, "what mindset would a leader exhibit that avoided getting involved, was absent when needed, delayed responses to urgent questions, and avoided making decisions?", it is likely that the answer would point to a fixed mindset. For the multiple regression analysis there were no other significant findings.

The data for the stepwise regression analysis also suggested a negative relationship between leaders exhibiting a passive-avoidant leadership style and scoring high on growth mindset (β = -.43, p = .001). The stepwise regression was based on 21 candidate variables, including the six demographic variables and 15 MLQ 5-X scores.

Stepwise regression analysis data for senior level leaders also found a negative relationship between growth mindset and laissez-faire leadership (β = -.40, p = .001), as well as the more positive transactional leadership style of contingent reward (β = -.22, p = .03).

The finding that senior leaders had a negative relationship between exhibiting a growth mindset and largely reporting a laissez-faire leadership style suggests that the senior leaders self-reporting as having a growth mindset do not think they have a passive-avoidant, absence of leadership style. The reasons for this finding may be that senior leaders self-reporting as having a growth mindset believe themselves to not being the absent when needed, delayed responsibility

type laissez-faire leader. The senior leaders professing to have a growth mindset may not identify with leaders that avoid getting involved when critical issues arise.

The finding of senior leaders self-reporting as exhibiting a growth mindset and having a negative relationship with the construct of the more positive transactional leadership style of contingent reward is of interest. This finding would suggest that the more growth the senior leader reports the less transactional leadership aspects they exhibit. They tend to report having a more inspirational type of leadership styles, and perhaps this could be due to some form of response bias even though these were anonymous online surveys. The respondent may want to be viewed, or view themselves, as more on the transformational leadership spectrum, and they may also be aware of how to respond to questions to achieve a 'favorable' outcome for the well-known concepts of leadership styles and growth mindset. Those favoring a contingent reward subscale of leadership tend to aid their subordinates in exchange for their efforts, and express satisfaction when their subordinates' meet expectations. Although this a positive transactional subscale, International senior leaders self-reporting as exhibiting a growth mindset may not view themselves as this type of leader as these transactional types of exchanges during the workday may be considered 'below their pay grade'. The senior leaders may leave such tasks as requiring teachers to complete unit or lesson plans to their middle managers, or other, seemingly mundane tasks such as completing paperwork for externally marked essays or exams. Senior leaders reporting as exhibiting a growth mindset may just not be as involved with teacher teams or others in the institution when situations like this arise so do not report as this type of transactional leader.

The converse of a passive-avoidant and laissez-faire leader would perhaps be more in line with that of a transformational, or at the very least transactional, leader. Such leaders may also tend to self-report as exhibiting more of a growth mindset. Perhaps the opposite of a

transformational leader is a leader who exhibits passive/avoidant behavior with a laissez-faire leadership style. The findings of the study suggest that a leader with a largely growth mindset does not exhibit a largely laissez-faire leadership style. For an international school, and in general for any institution, the effect of a leader who mainly exhibits a laissez-faire style of leadership could potentially be disastrous. This absence of leadership style of leadership may be calamitous, corrosive to the institution, and bring terrible results for students, the board of directors, parents, and staff. The middle manager and senior level leader of an international school with a preference for a laissez-faire style of leadership could inhibit the growth of their subordinates and lend to a general atmosphere of malaise in the school community.

Recommendations

The main research objective following the review of the literature in Chapter 2 was to bring together and build on current growth mindset theory and leadership styles to determine whether school leaders' growth mindset can be predicted from their leadership style. The study found that such a link was not made via statistical significance, but further research in this area is needed, as is common in social science studies. However, the main finding that a higher self-reported growth mindset score has a negative correlation to a laissez-faire leadership style could be instructive for hiring and promotion of leaders if the school community values these concepts.

This quantitively designed research study has explored some different theories that have been explored via evidence derived from secondary peer reviewed research literature review and from primary research Implicit Theories of Intelligence (ITIS) and Multi-factor Leadership Questionnaire (MLQ 5-X) survey analysis. The theories from either mindset or leadership styles can possibly be leveraged and translated into viable practical applications at the point of

intervention in international schools so that perhaps both existing and new middle and senior managers can become more effective in the delivery of the K-12 curriculum (Hildrew, 2018; Kaser & Halbert, 2009; Limeri et al., 2020).

Existing peer-reviewed research and the primary research offers significant quantitative evidence that points to varying degrees to which the reviewed literature and the questionnaire results support each other pertaining to how transformative leadership and the growth mindset both facilitate a more professional teaching and learning environment in international schools at two levels of management. It is recommended that future research be conducted by researchers tasked by the international school stakeholders and by scholars from the body of research. (Bunnel, 2019; Hildrew, 2018; Limeri et al., 2020; Tarc, 2013). It is recommended that future research is conducted not only by leading scholars and by heads of the educational industry but throughout the academic supply chain. This future research can include the director down to the students as samples. If they find that it meets their goals, it may be imperative that teachers, parents, and students should all be motivated to consider how a growth mindset and transformative leadership can be translated from theory into school or curriculum policy and be translated into practical step by step processes. This would require willing future researchers to reflect on how they can utilize and examine growth mindset and leadership styles to set up international school case studies to test ideas. Such willing researchers would perhaps embrace the challenges and failures of such an endeavor to identify and establish a more rigorous and effective delivery of leading, as well as of teaching and learning.

It is also recommended that due to the aforementioned limitations, that future researchers should formulate research questions that factor in the findings gained in this study and seek to pursue other aspects of what peer reviewed literature may offer. These research questions should

be constructed cognizant of the subjective views, experiences and opinions of students, parents, and teachers (bottom-up approach) so that a qualitative working model can be found that is based on real-lived experiences. When combined with these quantitative findings, this further research would essentially create a mixed methods methodological framework in which both an objective quantitative framework would provide both an overall picture of what is needed and an in-depth intuitive understanding.

A further recommendation that future researchers may explore and pursue beyond the boundaries of both existing knowledge and these findings to attempt to identify and address shortfalls in literature pertaining to the research problem, and possible issues that may not have been addressed by the primary questionnaire surveys. Therefore, future researcher should construct research questions that assume that the limitations imposed on this study are removed and that there would be more resources on hand to explore further. It was of interest to note the findings showed a statistical significance suggesting that middle leaders self-reported as favoring certain transactional constructs such as Management-by-Exception (Active). This finding could perhaps be explained by their close working relationship with their teams, and their management style may have to focus on the mistakes, or deviations from the school norms of their team members. It is recommended in future research that a qualitative approach should be employed focusing more middle managers in a mixed methods methodological study so as to provide a more balanced and nuanced understanding of not only using statistical data concerning what middle managers think and believe, but also using a qualitative approach employing semi-structured interviews. This qualitative approach should be comprised of open-ended questions that seeks to understand the rationale behind what participant interviewees think and believe in terms of their mindset and leadership styles. The resultant findings can be used to inform future studies concerning what

middle managers and other stakeholders think. These findings could be introduced into international schools and educational leadership programs to create greater efficiencies in the middle leadership cohorts and the delivery of knowledge in these institutions.

A recommendation for international school hiring leaders is that they require all potential senior level and middle level managers to take the MLQ 5-X test, as the results can help discern the candidates' preferred leadership style. The findings of the study suggests that a leader largely favoring a growth mindset has a negative correlation to exhibiting a largely laissez-faire leadership style. A candidate exhibiting largely laissez-faire leadership attributes would likely not add great positive value to the school community. However, these kind of pre-hiring tests are illegal in some countries, including the United States. Hiring managers may opt instead to ask directed questions to candidates to ascertain what kind of leadership style the candidate has, and if they are fairly certain the candidate exhibits largely laissez-faire leadership characteristics then they could reasonably infer the candidate would score higher on a mindset scale. The findings of this study indicate that hiring leaders can reasonably infer whether a candidate is likely to have more of a growth mindset once they determine if the candidate's preferred leadership style is that of a laissez-faire leader.

This research study recommends that these study findings are made freely available so that the educational and institutional leaders and decision-makers can be better informed concerning the possibilities posed by these findings. In addition, it is suggested that scholars within the body of research be encouraged to leverage these findings to look further afield at other opportunities to enhance the delivery of learning and knowledge within international schools. Moreover, these findings should be made freely available within the public domain so that decisions about the

direction taken going forward by international schools can be made by other stakeholders using informed consent.

It is recommended that future researchers utilize both the same research methodology and research tools to generate and collect data as conducted by this study and to test other possible methodologies and research tools to identify and collect other data and information. This should be enacted by researchers from within the education industry, the body of research and from within the public domain.

Finally, the study's sample was skewed towards white males because of the current demographics of international schools. Hiring leaders should continue to hire a diverse range of candidates in terms of ethnicity, gender, orientation, and from different geographical locations.

Conclusion

The study's main finding indicated that international school middle manager and senior leaders with higher levels of growth mindset have a negative relationship with a largely laissez-faire leadership style. The study also suggests that both middle and senior leaders in international schools are largely driven by a leadership style that emphasizes inspirational motivation towards those that they serve. These are leaders who can clearly articulate a vision for the future to their team members.

Perhaps it is difficult to uncover sweeping findings when looking at international school middle and senior leaders as they probably have more in common with one another than differences. Currently the available research on international school leaders and their leadership styles is not very robust, and therefore this study is of benefit towards advancing knowledge of the

international school field. I am grateful for all the international school leaders who took times out of their busy schedules during the Covid-19 pandemic to complete these surveys and lend their support to this research project.

Leading a school is difficult under normal circumstances, but even more so during a global pandemic. Many of us as international school leaders led our students, our staffs, our teams, our parents, and even one another through an extremely daunting series of challenges. The term stakeholder is a word that many educators view as a pejorative due to the view that this word is one of the creeping terms derived from the corporate setting that has now carried over into education. However, it is sometimes an aptly descriptive word for all the groups that international school leaders serve. Both middle managers and senior leaders in international schools play a massive role in shaping the future of children, and we did this for over two years while largely wearing protective masks against the virus. As leaders during such tumultuous times we could never let the proverbial 'mask' slip and show that sometimes we also were going through difficult times during the on-going Covid-19 pandemic.

The self-reported surveys from this study suggest that an overwhelming percentage of the 122 surveyed international school middle and senior leaders claim to prefer a transformational leadership style as well as identify largely with a growth mindset. A study finding suggests that senior leaders and middle managers also both share the transformational leadership subscale inspirational motivation, which is one of the "four I's" that aligns with leaders who motivate their followers in meaningful ways, as a leadership trait. These venerable characteristics of middle and senior level school leaders could have helped steward their respective international schools through the ongoing Covid-19 pandemic.

It may be important for hiring managers, and those in charge of the promotion of educators in international schools, to ensure that those that they promote to lead and manage their schools exhibit a largely growth mindset and tend to not largely possess a laissez-faire leadership style. In my December 2017 application statement to the University of San Diego's School of Leadership Studies Ph.D. program Dr. Carol Dweck's work on Growth Mindset alongside best practices in terms of leadership in international schools were the main anticipated areas of focus of my research.

During my first year in the program in Madrid I was told by a colleague to not focus on your initial research goal throughout the program as students frequently became bored with their subject matter by the time their coursework was completed, and the dissertation writing began. Taking this to heart, and due to a meeting during a course with a director of an international school in Madrid, my focus shifted to change management in international schools alongside growth mindset and leadership styles. Thankfully I shifted my focus back to my original research topic in time for my dissertation, as the fusion of growth mindset and leadership styles has been a main passion of mine for most of my almost twenty-year career as an educator.

This study also serves as a cautionary tale for any future researchers. The inducement of $5 Amazon gift cards as a means to reward respondents for completion of the survey led to a delay in the study as many false survey reports had to be sifted through and discarded. The University of San Diego was gracious to offer these to students, but this backfired spectacularly when an organized group of scammers filled in a little over three thousand surveys. The time-consuming process of weeding out false surveys took considerable time and effort and delayed the study analysis by several months. After a thorough vetting process only ($N = 122$) survey respondents

made the final survey analysis as truly representative respondents of international school middle managers or senior leaders.

Although a conclusive, statistically significant link between growth mindset and a preferred leadership style could not be proven, it is important to note the main finding from the study that international school leaders who scored higher mindset scores negatively correlated to a laissez-faire leadership style. The experience of working on and completing this study, however humble it may be, has been transformative for me as not only a researcher and school leader, but as a person as well. We are all works in progress in life, and for me, the gift of Dweck's growth mindset and Bass and Avolio's (1996) transformative/transformational leadership are wonderful benchmarks that we as a specie should all aspire to in the world. If only certain leaders of countries exhibited a growth rather than a fixed mindset, and operated as positive transformational leaders, then we could produce a better world for ours and future generations.

REFERENCES

Abd-El-Fattah, S. M., & Yates, G. (2013*). Implicit Theory of Intelligence Scale : Testing for factorial invariance and mean structure*. School of Education, University of South Australia, 1–14.

Adams, K. (2019). Developing growth mindset in the ensemble rehearsal. *Music Educators Journal*, *105*(4), 21–27. https://doi.org/10.1177/0027432119849473

Adamu, I., Sabi, I., & Bawa, S. (2014). Measuring Respondent Burden in Nigeria: A Case Study of Central Bank of Nigeria Enterprise Surveys. *CBN Journal of Applied Statistics (JAS)*, *5*(1), 105–117. https://dc.cbn.gov.ng/jas/vol5/iss1/6

Antonakis, J. (2001). *The validity of the transformational, transactional, and laissez-faire leadership model as measured by the Multifactor Leadership Questionnaire (MLQ 5X)*.

Antonakis, J. (2012). *Transformational and charismatic leadership*. The Nature of Leadership, 256-288.

Aruzie, R. S., Adjei, A., Mensah, D. A., Nkansah, I., & Anorkyewaa, A. A. (2018). The impact of leadership styles on teaching and learning outcomes: A case study of selected senior high schools in the Nkronza Districts of Brong Ahafo Region in Ghana. *International Journal of Scientific Research and Management,* 1-29. https://doi.org/10.18535/ijsrm/v6i12.el02

Atwater, L., Lau, A., Bass, B., Avolio, B., Camobreco, J., & Whitmore, N. (1994). *The content, construct and criterion-related validity of leader behavior measures.* U.S. Army Research Institute. https://apps.dtic.mil/sti/pdfs/ADA290124.pdf

Avey, J. B., Wernsing, T. S., & Luthans, F. (2008). Can positive employees help positive organizational change? Impact of psychological capital and emotions on relevant attitudes and behaviors. *The Journal of Applied Behavioral Science, 44*(1), 48-70. https://doi.org/10.1177/0021886307311470

Aviles, N., Sharp, G., & Grayson, K. (2017). *How transformational leaders develop a growth mindset for student success.* Intercultural Development Research Association, 1-4.

Avolio, B. J., Bass, B.M., & Jung, D.I. (1996). *Construct validation of the Multifactor leadership questionnaire MLQ- Form 5X.* Binghampton: State University of New York, Center for Leadership Studies.

Avolio, B. J., & Bass, B. M. (2004). *Multifactor leadership questionnaire. Manual and sampler set.(3rd ed.).* Mind Garden.

Bandura, M., & Dweck, C. S. (1985). *The relationship of conceptions of intelligence and achievement goals to achievement-related cognition, affect and behavior.* Unpublished Manuscript, Harvard University.

Barnett, E. A. (2017). *An analysis of the development of positive academic mindsets in diverse international baccalaureate world schools.* Geneva, Switzerland: IBO.

Bass, B. M. (1985). *Leadership and performance beyond expectation.* New York: Free Press.

Bass, B. M. (1999). Two decades of research and development in transformational leadership. *European Journal of Work and Organisational Psychology,8*(1), 9–32. https://doi.org/10.1080/135943299398410

Bass, B. M., & Avolio, B. J. (1994). *Improving organizational effectiveness: Through transformational leadership*. Sage.

Bass, B. M., & Avolio, B. J. (n.d.). *Multifactor Leadership Questionnaire (MLQ) - tests, training*. Multifactor Leadership Questionnaire Sample Items. Retrieved April 23, 2022, from https://www.mindgarden.com/16-multifactor-leadership-questionnaire#horizontalTab2

Bass, B. M., & Avolio, B. J. (1995). Multifactor Leadership questionnaire. *PsycTESTS Dataset*. https://doi.org/10.1037/t03624-000

Bass, B., & Avolio, B. (2004). *Multifactor leadership questionnaire manual (3rd ed).* Mind Garden, Inc.

Bass, B. M., & Riggio, R. E. (2006). *Transformational leadership*. Routledge.

Bates, R. (2011). *Schooling internationally: Globalization, internationalization, and the future of international Schools.* Routledge.

Beatty, P. C., Collins, D., Kaye, L., Padilla J.L., Willis, G. B., & Wilmot, A. (2020). *Advances in questionnaire design, development, evaluation and testing*. Wiley.

Benson, J. (2011). An investigation of chief administrator turnover in international schools. *Journal of Research in International Education,* 87-103. https://doi.org/10.1177/1475240911398779

Berkovich, I. (2016). School leaders and transformational leadership theory: Time to part ways? *Journal of Educational Administration*, *54*(5), 609–622. https://doi.org/10.1108/jea-11-2015-0100

Blackwell, L. S., Trzesniewski, K. H., & Dweck, C. S. (2007). Implicit theories of intelligence predict achievement across an adolescent transition: A longitudinal study and an intervention. *Child Development*, *78*(1), 246–263. https://doi.org/10.1111/j.1467-8624.2007.00995.x

Blane, H. (2017). *7 Principles of transformational leadership: Create a mindset of passion, innovation, and growth*. Career Press.

Bligh, M. C., Kohles, J. C., & Yan, Q. (2018). Leading and learning to change: The role of leadership style and mindset in error learning and organizational change. *Journal of Change Management*, *18*(2), 116–141. https://doi.org/10.1080/14697017.2018.1446693

Bloch, J., Brewer, P. C., & Stout, D. E. (2012). Responding to the leadership needs of the Accounting Profession: A module for developing a leadership mindset in accounting students. *Issues in Accounting Education*, *27*(2), 525–554. https://doi.org/10.2308/iace-50125

Briceño, E. (2015, March 19). Growth Mindset Parenting [web log]. Retrieved May 1, 2021, from https://www.gettingsmart.com/2015/03/19/growth-mindset-parenting/.

Bryman, A., Collinson, D., Grint, K., Jackson, B., & Uhl-Bien, M. (2011). *The Sage handbook of leadership.* Thousand Oaks, California: Sage Publishing.

Bunnell, T. (2019). *International schooling and education in the 'new era'*. Bingley: Emerald Publishing Limited.

Burns, J. M. (1978). *Leadership.* Ann Arbor, Michigan: University of Michigan.

Burns, J. M., & Sorenson, G. J. (1999). *Dead Center: Clinton-Gore leadership and the perils of moderation (Kindle Edition).* Scribner.

Busher, H., & Harris, A. (1999). Leadership of school subject areas: Tensions and dimensions of managing in the middle. *School Leadership & Management*, *19*(3), 305-317.

Cable, D. (2018, April 23). *How humble leadership really works.* Harvard Business Review.

Caniëls, M. C., Semeijn, J. H., & Renders, I. H. (2018). *Mind the mindset! The interaction of proactive personality, transformational leadership and growth mindset for engagement at work.* Career Development International, 23(1), 48–66. https://doi.org/10.1108/cdi-11-2016-0194

Chryssides, G. D., & Zeller, B. E. (Eds.). (2014). The Bloomsbury companion to new religious movements. *A&C Black*.

Claro, S., Paunesku, D., & Dweck, C. (2016). *Mindset tempers effects of poverty on achievement.* Santiago, Chile: Proceedings of the National Academy of Sciences. https://doi.org/10.1073/pnas.1608207113

Costa, A., & Faria, L. (2018). Implicit theories of intelligence and academic achievement: A Meta-Analytic Review. *Frontiers in Psychology*, *9*. https://doi.org/10.3389/fpsyg.2018.00829

Creswell, J. W. (2003). *Research design: Qualitative, quantitative, and mixed Methods approaches, 2nd Edition.* Sage.

Curley, C., Krause, R. M., Feiock, R., & Hawkins, C. V. (2017). Dealing with missing data: A Comparative Exploration of approaches using the Integrated City Sustainability Database. *Urban Affairs Review*, *55*(2), 591–615. https://doi.org/10.1177/1078087417726394

Da Fonseca, D., Schiano-Lomoriello, S., Cury, F., Poinso, F., Rufo, M., & Therme, P. (2007). Validation study of the implicit theories of intelligence scale/Validité Factorielle d'un questionnaire mesurant Les Théories implicites de l'intelligence (TIDI). *L'Encéphale*, *33*(4), 579–584. https://doi.org/10.1016/s0013-7006(07)92056-4

Decapua, A., & Marshall, H. W. (2011). *Reaching ELLs at risk: Instruction for students with limited or interrupted formal education.* Preventing School Failure, 35-41. https://doi.org/10.1080/10459880903291680

De Castella, K. & Byrne, D. (2015). *My Intelligence may be more malleable than yours: The revised implicit theories of intelligence (self-theory) scale is a better predictor of achievement, motivation, and student disengagement.* European Journal of Psychology of Education, 245–267. https://doi.org/10.1007/s10212-015-0244-y

Denworth, L. (2019). *Debate arises over teaching "growth mindsets" to motivate students.* Scientific American.

Donmoyer, R. (1985). *Cognitive anthropology and research on effective principals.* Educational Administration Quarterly, 31-57.

Donmoyer, R., Yennie-Donmoyer, J., & Galloway, F. (2012). The search for connections across principal preparation, principal performance, and Student Achievement in an exemplary principal preparation program. *Journal of Research on Leadership Education, 7*(1), 5–43. https://doi.org/10.1177/1942775112440631

Downton, J. V. (1973). *Rebel leadership: Commitment and charisma in the revolutionary process*. The Free Press.

Dweck, C. (1999). *Essays in social psychology. Self-theories: Their role in motivation, personality, and development.* Psychology Press. https://doi.org/10.1207/s15327965pli0604_1

Dweck, C. (2000). *Self-theories: Their role in motivation, personality, and development.* Psychology Press; Taylor & Francis Group.

Dweck, C. (2006; 2016). *Mindset: The new psychology of success.* New York: Ballantine Books.

Dweck, C. (2015). *Carol Dweck revisits the 'growth mindset'.* Education Week. https://www.edweek.org/ew/articles/2015/09/23/carol-dweck-revisits-the- growth-mindset.html

Dweck, C. (2016). *What having a "growth mindset" actually means.* Harvard Business Review.

Dweck, C. S. (1995). *Implicit theories and their role in judgments and reactions: A word from two perspectives.* Psychological Inquiry, 267-285. https://doi.org/10.1207/s15327965pli0604_1

Dweck, C. S. (1999). *Self-theories: Their role in motivation, personality, and development.* Psychology Press.

Dweck, C. S., Chiu, C.-Y., & Hong, Y.-Y. (1995). Implicit theories and their role in judgments and reactions: A word from two perspectives. *Psychological Inquiry*, *6*(4), 267–285. https://doi.org/10.1207/s15327965pli0604_1

Dweck, C. S., & Leggett, E. L. (1988). A social-cognitive approach to motivation and personality. *Psychological Review*, *95*(2), 256–273. https://doi.org/10.1037/0033-295x.95.2.256

Dweck, C. S., & Molden, D. C. (2007). Self-theories: their impact on competence motivation and acquisition. In A. J. Elliot (Ed.), *Handbook of Competence and Motivation* (pp. 122–140). essay, Guilford Press.

Dweck, C. S., & Repucci, N. D. (1973). *Learned helplessness and reinforcement responsibility in children.* Journal of Personality and Social Psychology, 109-116. https://doi.org/10.1037/h0034248

Eddy, P. L., & VanDerLinden, K. E. (2006). *Emerging definitions of leadership in higher education: New visions of leadership or same old "hero" leader?.* Community College Review, 34(1), 5-26.

Fuente, S. D. (2016). *The effect of leadership and internal communication on the organizational climate.* Universitat Jaume I.

Fung, D. (2017). A connected curriculum for higher education. *In: UCL Press.*

Gardner, H. (2007). *Five minds for the future.* Cambridge, MA: Harvard Business School Press.

Garcia-Cepero, M. C., & Betsy, M. C. D. (2009). Educators' Implicit Theories of Intelligence and Beliefs about the Identification of Gifted Students. *Universitas Psychologica, Bogota, Columbia*, 295–310.

George, B. (2003). *Authentic leadership: Rediscovering the secrets to creating lasting value.* San Francisco: Jossey-Bass.

George, B., Sims, P., McLean, A. N., & Mayer, D. (2007). *Discovering your authentic leadership.* Harvard Business Review, 85(2), 129.

Gerstein, J. (2014). *Experiences in self-determined learning*. (L. M. Blaschke, C. Kenyon, & S. Hase, Eds.). CreateSpace Independent Publishing Platform.

Gottfredson, R. K., & Reina, C. S. (2021). Illuminating the foundational role that mindsets should play in leadership development. *Business Horizons*, *64*(4), 439–451. https://doi.org/10.1016/j.bushor.2021.02.009

Gunderson, E. A., Gripshover, S. J., Romero, C., Dweck, C. S., Goldin-Meadow, S., & Levine, S. C. (2013). Parent praise to 1- to 3-year-olds predicts children's motivational frameworks 5 years later. *Child Development*, *84*(5), 1526–1541. https://doi.org/10.1111/cdev.12064

Grimshaw, T. (2007). Critical perspectives on language in international education. *The Sage Handbook of Research in International Education*, pp. 367-378.

Han, S. J., Vicki, S., Poitevin, E., & Starnes, T. (2018, June 7). *Growth mindset in adult learning: Systematic literature review*. New Prairie Press. Retrieved April 21, 2022, from https://newprairiepress.org/cgi/viewcontent.cgi?referer=&httpsredir=1&article=4062&context=aerc

Hanson, J., Ruff, W. G., & Bangert, A. (2016). *Investigating the relationship between school level and a school growth mindset.* Journal of Educational Issues, 2(2), 203-221.

Hanson, J., Bangert, A., & Ruff, W. (2016). *Exploring the relationship between school growth mindset and organizational learning variables: Implications for multicultural education.* Journal of Educational Issues, 1-22.

Hargreaves, A., & Fillan, M. (2012). *Professional capital: Transforming teaching in every school.* New York: Columbia Teachers College Press.

Harvey, J., Cummins, H., & Holland, H. (2013). *The school principal as leader: Guiding schools to better teaching and learning.* New York City: Wallace Foundation.

Hay, I. (2006). *Transformational leadership: Characteristics and criticisms.* E-Journal of Organizational Learning and Leadership, 2-19.

Hildrew, C. (2018). *Becoming a growth mindset school.* New York: Routledge.

Hollingsworth, J. (2019). *Why the past decade saw the rise and rise of East Asian pop culture.* CNN Entertainment.

Howell, J. M., & Avolio, B. J. (1992). The ethics of charismatic leadership: submission or liberation? *Academy of Management Perspectives, 6*(2), 43–54. https://doi.org/10.5465/ame.1992.4274395

Hoyt, C., Burnette, J. L., & Innella, A. N. (2012). *I can do that: The impact of implicit theories on leadership role.* Jepsen School of Leadership Studies, University of Richmond, 1-40. https://doi.org/10.1177/0146167211427922

ISC Research, (2020). *About the international school market.* Retrieved from ISC Research: https://www.iscresearch.com/about-us/the-market

Ischinger, B. I. (2009). *Creating effective teaching and learning environments (summary in English).* TALIS; Organization of Economic Cooperation and Development, 189-217.

Joinson, A. (1999). Social desirability, anonymity, and internet-based questionnaires. *Behavior Research Methods, Instruments, & Computers*, *31*(3), 433–438. https://doi.org/10.3758/bf03200723

Judge, T. A., & Piccolo, R. F. (2004). *Transformational and transactional leadership: A meta-analytic test of their relative validity.* Journal of Applied Psychology, 89(5), 755– 768. https://doi.org/10.1037/0021-9010.89.5.755

Kale, A. J. (2013). *The relationship between implicit person theory and transformational leadership* (dissertation).

Kalkan, Ü., Altınay Aksal, F., Altınay Gazi, Z., Atasoy, R., & Dağlı, G. (2020). The relationship between school administrators' leadership styles, school culture, and Organizational Image. *SAGE Open*, *10*(1), 215824402090208. https://doi.org/10.1177/2158244020902081

Kaser, L., & Halbert, J. (2009). *Leadership mindsets: Innovations and earning in the transformation of schools.* London: Routledge.

Keung, K., & Rockinson-Szapkiw, A. (2013). *The relationship between transformational leadership and cultural intelligence: A study of international School Leaders.* Journal of Educational Administration, 836-854. https://doi.org/10.1108/JEA-04-2012-0049

Khanin, D. (2007). *Contrasting Burns and Bass: Does the transactional-transformational paradigm live up to Burns' philosophy of transforming leadership*?. Journal of Leadership Studies, 1(3), 7-25.

Kouzes, T. K., & Posner, B. Z. (2019). Influence of managers' mindset on leadership behavior. Leadership & Organization Development Journal, 829-844.

Kuhnert, K. W. & Lewis P. (1987). Transactional and transformational leadership: A constructive/developmental analysis. *Academy of Management Review 12*, 648-657.

Lee, M. (2014). Transformational leadership: is it time for a recall?. International journal of management and applied research, 1(1), 17-29.

Leithwood, K., & Jantzi, D. (2005). *Transformational leadership. The essentials of school leadership,* 31-43. Educational Leadership.

Levy, S. R., Stroessner, S. J., & Dweck, C. S. (1998). Stereotype formation and endorsement: The role of implicit theories. *Journal of Personality and Social Psychology*, *74*(6), 1421–1436. https://doi.org/10.1037/0022-3514.74.6.1421

Li, P., Zhou, N., Zhang, Y., Xiong, Q., Nie, R., & Fang, X. (2017). *Incremental theory of intelligence moderated the relationship between prior achievement and school engagement in Chinese high school students.* Frontiers in Psychology, 8, 1703. pp. 1–8. https://doi.org/10.3389/fpsyg.2017.01703

Limeri, L. B., Carter, N. T., Choe, J., Harper, H. G., Martin, H. R., Benton, A., & Dolan, E. L. (2020). *Growing a growth mindset: Characterizing how and why undergraduate students' mindsets change.* International Journal of STEM Education, 7(1), 1-19.

Lowe, K., Kroeck, K. G., & Sivasubramaniam, N. (1996). *Effectiveness correlates of transformational and transactional leadership: A meta-analytic review of the MLQ literature.* The Leadership Quarterly, 385-425. https://doi.org/10.1016/S1048-9843(96)90027-2

Mansouri, N. (2015). *Relationship between transformational leadership, innovation, learning*

and growth, and internal process: Government organizations. International Journal of Science and Engineering Applications, 4(5), 282-286.

Marzano, R., Waters, T., & McNulty, B. (2006). *School leadership that works: From research to results*. Alexandria, VA: ASCD.

Masters, G. N. (2014). *Towards a growth mindset in assessment*. Practically Primary, 19(2), 4-7.

McMillan, J. H. (2003). *Understanding and improving teachers' classroom assessment decision making: Implications for theory and practice.* Educational Measurement: Issues and Practice, 22(4), 34-43.

Multifactor Leadership Questionnaire (MLQ) - tests, training. Mind Garden. (n.d.). Retrieved April 23, 2022, from https://www.mindgarden.com/16-multifactor-leadership-questionnaire#horizontalTab2

Mitchell, D. (2018). *The ecology of inclusive education: Strategies to tackle the crisis in educating diverse learners.* Routledge.

Muenjohn, N., & Armstrong, A. (2008). Evaluating the structural validity of the Multifactor Leadership Questionnaire (MLQ), capturing the leadership factors of transformational-transactional leadership. Contemporary Management Research, 3-14. https://doi.org/10.7903/cmr.704

Mulla, Z. R., & Krishnan, V. R. (2011). Transformational leadership. *Journal of Human Values*, *17*(2), 129–143. https://doi.org/10.1177/097168581101700203

Murphy, L., & Thomas, L. (2008). Dangers of a fixed mindset. *Proceedings of the 13th Annual Conference on Innovation and Technology in Computer Science Education - ITiCSE '08.* https://doi.org/10.1145/1384271.1384344

Mlakar, M. K. (2019). *Principals' Mindset: Growth or Fixed?* (dissertation). OhioLINK ETD Center, Youngstown, Ohio.

National College for Teaching and Leadership. (2020). *The role of senior leaders (Part 1).* http://www.inspiringleaderstoday.com/ILTMaterials/LEVEL2_EPW-v4.0-2014_08_22-10_55/effective-partnership-working/epw2-s2/epw2-s2-t3.html

Northouse, G. (2007). *Leadership theory and practice. (3rd ed.).* London: Sage Publications.

Northouse, P. G. (2013). Leadership: Theory and practice, 6th ed., *London: Sage Publication.*

Nottingham, J., & Larsson, B. (2019). *Challenging mindset why a growth mindset makes a difference in learning-and what to do when it doesn't.* Corwin.

Odland, G., & Ruzicka, M. (2009). An investigation into teacher turnover in International Schools. *Journal of Research in International Education*, *8*(1), 5–29. https://doi.org/10.1177/1475240908100679

Oliveras-Ortiz, Y. (2015). The impact of high stakes testing on school leadership. School Leadership Review, 7-19.

Ozduran, A., & Tanova, C. (2017). *Manager mindsets and employee organizational citizenship behaviors.* International Journal of Contemporary Hospitality Management, 589-606.

Papadopoulos, N. (2020). *How the growth mindset can harm your learning and what to do about it.* Metalearn.

Park, D. (2015). *Time to move on? When entity theorists perform better than incremental theorists.* Personality and Social Psychology Bulletin, 736–748. https://doi.org/10.1177/0146167215578028

Patrick, S. K., & Joshi, E. (2019). Set in Stone" or "Willing to Grow"? Teacher sensemaking during a growth mindset initiative. *Teaching and Teacher Education, 83*, 156-167.

Qadir, J., Yau, K.-L. A., Ali Imran, M., & Al-Fuqaha, A. (2020). Engineering education, moving into 2020s : Essential competencies for effective 21st Century Electrical & Computer engineers. *2020 IEEE Frontiers in Education Conference (FIE).* https://doi.org/10.1109/fie44824.2020.9274067

Rangel, J. G., King, M., & Muldner, K. (2020). An incremental mindset intervention increases effort during programming activities but not performance. *ACM Transactions on Computing Education*, *20*(2), 1–18. https://doi.org/10.1145/3377427

Rayner, L. (2020). *What is the relational leadership model?* Graduate Programs for Educators.

Reed, B. N., Klutts, A. M., & Mattingly, T. J. (2019). *A Systematic Review of Leadership definitions, competencies, and assessment methods in pharmacy education.* American Journal of Pharmaceutical Education, 83(9).

Ricci, M. C. (2018). *Create a growth mindset school.* Waco: Prufrock Press.

Robinson, C. (2017). *Growth mindset in the classroom.* Science Scope, 41(2), 18.

Rolstad, S., Adler, J., & Rydén, A. (2011). Response burden and questionnaire length: Is shorter better? A review and meta-analysis. *Value in Health*, *14*(8), 1101–1108.

Saad Alessa, G. (2021). The dimensions of transformational leadership and its organizational effects in public universities in Saudi Arabia: A systematic review. *Frontiers in Psychology*, *12*. https://doi.org/10.3389/fpsyg.2021.682092

Sheng, Z., Sheng, Y., & Anderson, C. J. (2011). *Dropping out of school among ELL students: Implications to schools and teacher education.* The clearing house: A Journal of Educational Strategies, Issues and Ideas, 98-103. https://doi.org/10.1080/00098655.2010.538755

Shields, C. M. (2011). 1-17. In *Transformative leadership: A Reader. Counterpoints: Studies in the postmodern theory of education. volume 409.* essay, Peter Lang Inc., International Academic Publishers.

Simon, M. K., & Goes, J. (2018). *Dissertation and scholarly research: Recipes for success: A practical guide to start and complete your dissertation, thesis or formal research project.* CreateSpace Independent Publishing Platform.

Singh, C. (2021, February 20). *Inclusive Mentoring: The Mindset of an Effective Mentor.* American Physical Society Physics. Retrieved April 22, 2022, from https://www.aps.org/publications/apsnews/202102/backpage.cfm

Sisk, V. F., Burgoyne, A., Sun, J., & Butler, M. (2018). *To what extent and under which circumstances are growth mind-sets important to academic achievement?* Two meta-analyzes. Psychological Science, 29 (4), 549–571. https://doi.org/10.1177/0956797617739704

Skogstad, A., Einarsen, S., Torsheim, T., Aasland, M. S., & Hetland, H. (2007). The destructiveness of laissez-faire leadership behavior. Journal of Occupational Health Psychology, 12(1), 80.

Steinmann, B., Klug, H. J., & Maier, G. W. (2018). *The path is the goal: How transformational leaders enhance followers' job attitudes and proactive behavior.* Frontiers in Psychology, 9, 2338.

Stronge, J. H., Ward, T. J., Tucker, P. D., & Hindman, J. L. (2007). *What is the relationship between teacher quality and student achievement? An exploratory study.* Journal of Personnel Evaluation in Education, 20(3), 165-184.

Tarc, P. (2013). *International education in global times engaging the pedagogic*. Lang.

Taylor, T. A. (2021). Yes, there is racism in international schools: A discussion about the Black experience in American international schools. *Annual Review of Comparative and International Education 2020.*

Tian, H., Shuja Iqbal, S. A., Qalati, S. A., Anwar, F., & Khan, M. A. S. (2020). *The Impact of transformational leadership on employee retention: Mediation and moderation through organizational citizenship behavior and communication.* Frontiers in Psychology, 11-31. https://doi:10.3389/fpsyg.2020.00314

Tirri, K., Eisenschmidt, E., Poom-Valickis, K., & Kuusisto, E. (2021). Current challenges in school leadership in Estonia and Finland: A multiple-case study among exemplary principals. *Education Research International, 2021*.

Toban, C., & Sjahruddin, H. (2016). *The antecedent and consequence of organizational commitment and job satisfaction.* Journal of Business and Management Sciences, 26-33. doi:10.12691/jbms-4-2-1.

Toprak, M., Inandi, B., & Levent, A. (2015). Do leadership styles influence organizational health? A study in educational organizations. *International Journal of Educational Methodology*, *1*(1), 19–26. https://doi.org/10.12973/ijem.1.1.19

Tourish, D. and Pinnington, A. (2002). Transformational leadership, corporate cultism and the spirituality paradigm: An unholy trinity in the workplace. *Human Relations, Vol. 55*, No. 2, pp. 147-172. https://doi.org/10.1177/0018726702055002181

Troche, S. J., & Kunz, A. (2020). Implicit theories of intelligence scale--German version. *PsycTESTS Dataset*. https://doi.org/10.1037/t83089-000

Uddin, M. A., Rahman, M. S., & Howladar, M. H. R. (2017). *Empirical study on transformational leadership, deviant behaviour, job performance, and gender: Evidence from a study in Bangladesh.* European Journal of Management Studies, 22(2), 77-97.

Walsemann, K., Gee, G., & Ro, A. (2013). *Educational attainment in the context of social inequality: New directions for research on education and health.* American Behavioral Scientist, 1082-1104. https://doi.org/10.1177/0002764213487346

Waters, J. M. (2003). *Balanced leadership: What 30 years of research tells us about the effect of leadership on student achievement.* Mid-Continent Research for Education and Learning, 21.

Williams, S. (2020). *Embedding a growth mindset in maths.* Retrieved from Pearson International: https://blog.pearsoninternationalschools.com/using-growth-mindset-in-maths/

World Data Lab. (2020). *Making everyone count.* https://worlddata.io/

Wright, K. B. (2006). *Researching internet-based populations: Advantages and disadvantages of online survey research, online questionnaire authoring software packages, and web survey services.* Journal of Computer-Mediated Communication, 10(3), 00–00. https://doi.org/10.1111/j.1083-6101.2005.tb00259.x

Yan, Q., Bligh, M. C., & Kohles, J. C. (2014). Absence makes the errors go longer: How leaders inhibit learning from errors. *Zeitschrift für Psychologie, 222*(4), 233.

Yeager, D. S., Hanselman, P., Walton, G. M., Murray, J. S., Crosnoe, R., Muller, C., Tipton, E., Schneider, B., Hulleman, C. S., Hinojosa, C. P., Paunesku, D., Romero, C., Flint, K., Roberts, A., Trott, J., Iachan, R., Buontempo, J., Yang, S. M., Carvalho, C. M., … Dweck, C. S. (2019). A national experiment reveals where a growth mindset improves achievement. *Nature*, *573*(7774), 364–369. https://doi.org/10.1038/s41586-019-1466-y

Yettick, H., Lloyd, S., Harwin, A., Riemer, A., & Swanson, C. B. (2016). *Mindsets in the classroom.* Bethesda, Maryland: Editorial Projects in Education, Inc.

APPENDIX A

Theories of Intelligence Scale—Self Form For Adults

This questionnaire has been designed to investigate ideas about intelligence. There are no right or wrong answers. We are interested in your ideas. Using the scale below, please indicate the extent to which you agree or disagree with each of the following statements by writing the number that corresponds to your opinion in the space next to each statement.

1	2	3	4	5	6
Strongly Agree	Agree	Mostly Agree	Mostly Disagree	Disagree	Strongly Disagree

Dweck, Carol S.. Self-theories (Essays in Social Psychology) (p. 156). Taylor and Francis. Kindle Edition.

*_____ 1. You have a certain amount of intelligence, and you can't really do much to change it.

*_____ 2. Your intelligence is something about you that you can't change very much. _____

3. No matter who you are, you can significantly change your intelligence level. *_____

4. To be honest, you can't really change how intelligent you are. _____

5. You can always substantially change how intelligent you are. *_____

6. You can learn new things, but you can't really change your basic intelligence. _____

7. No matter how much intelligence you have, you can always change it quite a bit. _____

8. You can change even your basic intelligence level considerably. _____

*These items can be used alone. Note: For studies of how people's theories of intelligence affect how they judge and treat others, use the "Others" form of the theories of intelligence scales. The "Others" form is constructed by replacing the word "you" with the words "people," "someone," or "everyone" (as in the "kind of person" scale below).

APPENDIX B

MLQ 5X Permission to Use the Copyrighted Survey From Mindgarden™

Multifactor Leadership Questionnaire™

Third Edition
Manual and Sample Set

Bruce J. Avolio and Bernard M. Bass
University of Nebraska and SUNY Binghamton

Contributions by:
Dr. Fred Walumbwa
Weichun Zhu
University of Nebraska—Lincoln
Gallup Leadership Institute

mind garden
Published by Mind Garden, Inc.
info@mindgarden.com
www.mindgarden.com

APPENDIX C

Consent Form for Managers of Change: Exploring the relationship between International School

Leaders Mindset and their preferred leadership styles

Thank you very much for agreeing to participate in this PhD dissertation survey on mindset

and leadership styles.

The information provided by you in this questionnaire will be used for research purposes.

It will not be used in any manner which would allow identification of your individual responses.

Anonymized research data will be archived at the University of San Diego to make them

available to other researchers in line with current data sharing practices.

APPENDIX D

Demographics

Directions: Please check the box that best suits you and feel free to provide any further information

1. Gender

  1 Female Male

  2 Other: (e.g.: transgender, non-binary)

2. Ethnicity (choose the one you identify with the most)

  3 Asian African Caucasian Hispanic Middle Eastern Pacific Islander

  4 Other: Please specify_____

3. Current Geographic location: Asia Central America Europe Middle East North America

  Oceania South America

4. Highest degree earned:

  5 BA/BS MA/MS Ph.D./Ed.D./J.D.

  6 Other: Please specify_____

5. Years of work experience in K-12 education:

6. Years of full or part time experience in an educational leadership/ administrative role:

7. Current leadership role

  7 Senior Leadership Team member:

  8 Director / Head Teacher / Principal / Assistant Principal / Deputy Head Teacher

  9 Other: Please specify _____

  10 Middle leadership:

11 Department Head / Curriculum Coordinator / Subject Leader / Middle manager

12 Other: Please specify_____

8. Current title and number of years in this administrative role at your current school:

13 Current position and number of years in position: _____

APPENDIX E

SOLES: School of Leadership
and Education Sciences
Joe Brogan, PhD Candidate

University
of San Diego®

Lausanne, Switzerland
E: jbrogan@sandiego.edu

May 11, 2021

Dear Sir or Madam:

My name is Joe Brogan, and I work at the Brillantmont International School in Lausanne, Switzerland. I also am a Ph.D. student at the University of San Diego.   As part of my Ph.D. program, I am conducting a study called "**Leaders of Change: An Exploration of Relationships Between International School Administrators' Mindsets and Their Preferred Leadership Styles.**"

The purpose of this study is to better understand relationships between international school leaders' preferred leadership styles and other aspects of their leadership practices. The centerpiece of the study is the three-part survey below to be completed by international school leaders at both the senior and middle-manager levels. I am asking you to complete the survey, which should take approximately 11 minutes. Please find the link to the survey here: https://usd.qualtrics.com/jfe/form/SV_9obDnJfUUkI4WRn

Survey results will be anonymous. Even I will not know the identity of the person who filled out a particular survey. In addition, the anonymous survey data will be kept in a secure, password-protected location. After you complete the survey, follow the directions to receive a $5 Amazon gift card that will be sent to you via email; your email will be decoupled from your data. Doing this will not reveal how you responded to survey items. Engaging with this survey does, however, signal your willingness to participate in the study. You can end your participation at any time during the survey.

Thank you for considering participation in this study. I know how valuable your time is.

Sincerely,

Joe Brogan

Joe Brogan
PhD Candidate
University of San Diego SOLES
Jbrogan@sandiego.edu