JAPANESE UNIVERSITY EAP STUDENTS' ACADEMIC CHALLENGES AND STRUGGLES: INVESTIGATING MANIFESTATIONS AND SOCIOCULTURAL INFLUENCES OF LEARNER MINDSET MEANING SYSTEMS

Jason D. Gold

Submitted to the faculty of the School of Education
in partial fulfillment of the requirements
for the degree
Doctor of Education
in the Department of Curriculum and Instruction,
Indiana University
February 2024

Accepted by the School of Education Faculty, Indiana University, in partial fulfillment of the requirements for the degree of Doctor of Education.

Doctoral Committee

_____

Karen Wohlwend, Ph.D.

_____

Mary Beth Hines, Ph.D.

_____

Jessica Lester, Ph.D.

January 25, 2024

ACKNOWLEDGEMENTS

Embarking on this doctoral journey has been a transformative experience, and I am immensely grateful for the guidance and support of those who have been instrumental in its completion. Firstly, my heartfelt gratitude goes to my advisor, Karen, and my esteemed committee members Mary Beth and Jessica. Their wealth of expertise and discerning feedback played a crucial role in not only shaping and refining the content of this dissertation but also in fostering my growth as a practitioner/researcher. Beyond their academic contributions, their genuine warmth and steadfast support over the past five years were indispensable lifelines, helping me surmount the multitude of challenges and obstacles I encountered throughout this doctoral program.

Secondly, I wish to thank my fellow cohort peers, whose camaraderie and encouragement played an instrumental role in inspiring and motivating me throughout the entirety of this doctoral program. Their collaborative spirit not only infused vibrancy into the coursework but also injected a sense of fun and enrichment into the challenging process of dissertation writing. The invaluable feedback and uplifting words of encouragement from my peers have truly enhanced the overall doctoral experience, turning it into a journey marked by shared triumphs and mutual growth.

Finally, inexpressible thanks are due to my wife, Naoko, for her enduring love and patience during the trials of this journey. My deepest gratitude also goes to my parents, Jeff and Gilda, and my younger brother, Jordan, for their unwavering belief in me. Their unconditional support and empathetic listening during moments of stress were the bedrock of my perseverance. This dissertation's completion is not just a personal achievement, but a shared success made possible by the profound influence of these exceptional individuals in my life.

Jason D. Gold

JAPANESE UNIVERSITY EAP STUDENTS' ACADEMIC CHALLENGES AND STRUGGLES: INVESTIGATING MANIFESTATIONS AND SOCIOCULTURAL INFLUENCES OF LEARNER MINDSET MEANING SYSTEMS

Arguably the main goal of education is to prepare students for both academic and future success. Historically, schools have prioritized cognitive skill development, utilizing standardized testing and GPA as predictors of achievement, which has significantly influenced global curricula and instructional strategies. However, this focus has unintended negative effects on students' well-being and engagement, as the belief that test results and grades reflect lifelong intelligence and future potential can result in demotivation and disengagement. Decades of research into learner mindsets has demonstrated that holding growth mindset-oriented learning beliefs can counteract this, positively influencing students' academic behaviors, motivation, persistence, and overall academic achievement. However, the existing mindset research has predominantly employed the cognitive perspective, primarily utilizing quantitative research methods as well as "WEIRD" (Western Educated Industrial Rich Democratic) populations. Yet this overlooks the importance of sociocultural influences and neglects the nuanced impact of learning contexts and culture, necessitating research into non-WEIRD populations to investigate how cultural variations can uniquely shape students' mindsets and learning experiences.

Toward this end, this dissertation explored the mindsets of Japanese EAP university students, focusing on their beliefs and responses to academic challenges and setbacks. In particular, it investigated the key influential socializers and lived experiences that shaped their

mindsets and sought to understand their perceptions of the Japanese education system, to gain insights on how to better cultivate a growth mindset within it. This qualitative investigation involved 115 EFL Japanese students enrolled in a Study Strategies and Growth Mindset EAP Seminar taught between 2021-2023, using weekly reflective writings and semi-structured interviews for data collection. The research adopted an interpretive embedded single-case study design, employing template analysis for data interpretation. Results revealed Japan-specific cultural influences played a unique role in shaping students' mindsets. Family, friends/peers, teachers/school, and media/society were cited as both positively and negatively shaping their mindset beliefs. In particular, participants overwhelmingly expressed the Japanese education system as fostering a fixed mindset environment, citing an overemphasis on results over the process of learning, constant competition, social comparisons, and conformity pressures. Their suggestions focused on strategies for students and underscored practices educators should incorporate to address these challenges.

_____

Karen Wohlwend, Ph.D.

_____

Mary Beth Hines, Ph.D.

_____

Jessica Lester, Ph.D.

Table of Contents

CHAPTER 1: Issue and Significance

"Our job as parents, teachers, and leaders is not to prepare kids for something; our job is to help kids prepare themselves for anything."

(Martin, 2021, p. 147)

Chapter Overview

In this chapter I first provide an introduction of my background and positionality as a teacher-researcher, to share what personal and professional experiences have impacted me, leading to the development of this study. I then give a brief overview of a general overarching issue that impacts the topic of my study: how the dominant discourses within schooling of high-stakes testing practices and progressive learning conflict, and what issues this can cause regarding students' academic beliefs (about intelligence and effort), behaviors, and performance. From this, I introduce the conceptual framework of the learner mindset meaning system: what it is, how it can help address these issues, and why it is a crucial yet underutilized part of students' education that requires more consideration by stakeholders and practitioners.

I then discuss two gaps in the existing literature: 1) that research into learner mindsets has predominantly been grounded in the cognitive perspective, focusing on individual internal factors using quantitative measures; and 2) the majority of research has been conducted in and used Western Educated Industrial Rich Democratic (WEIRD) populations, with the results ubiquitously applied to all of humankind. To address these gaps, there is a need for: 1) sociocultural considerations and qualitative research methodologies to understand how specific influences in learners' context(s), culture, and lived experiences also shape students' beliefs and behaviors about learning, and 2) for greater research equity into more culturally diverse

populations, to investigate and provide contextually-specific insights about learners' learner mindsets.

I then introduce the specific context of my current project: to contribute to these gaps by researching learner mindsets qualitatively from the sociocultural perspective and within a non-WEIRD context; that of Japanese university English for Academic Purposes (EAP) students at a high-level national university in Japan. To conclude, I briefly outline my methodology, research questions, and the organization of the study.

Positionality and Role of the Researcher

When conducting qualitative research, it is important for the researcher to reflect on their background, positionality, and role; to acknowledge how each has shaped who they are, their beliefs, and how these have influenced the purpose and design of their study. In my case, for the past decade I have had the opportunity to teach as an EAP instructor at several high-level universities in Japan. Each university requires its student applicants to pass a rigorous, challenging, and highly competitive entrance examination in order to be admitted. The purpose and underlying assumption of this exam is that it is a means for students to demonstrate to the university their intelligence, effort, and commitment to studying—to ensure they will be able to succeed at the higher education level. Students often begin studying for this entrance exam several years earlier during high school, or even during junior high school, with many attending private cram schools in addition to their regular schooling to adequately prepare for it.

However, from my early years as an EAP instructor I have been puzzled and intrigued by the fact that in every course I have taught there are always a number of students who struggle academically. These students tend to be late to or skip class, submit incomplete homework or forget to do it entirely, and can come across as unmotivated passive learners, lacking confidence,

purpose, and drive. In contrast, I also encounter every semester a number of students who seem to just naturally know what it takes to succeed and excel academically. These students are usually confident, self-driven, and clearly invested in being an active participant in the learning process and continuously striving to improve themselves. Both groups of students—and all those in between— are clearly intelligent and capable individuals, as they were able to attend to their junior/high school classes with the rigor needed to achieve good grades, and were motivated and self-regulating enough to study for years in order to successfully pass the daunting university entrance exam. Furthermore, compared to a country like the United States (U.S.) that overall tends to have much more diversity among students (e.g., racial, socioeconomic status, cultural, etc.), the backgrounds of these students are—on the surface at least—relatively homogenous and similar. Thus I have constantly wondered: what exactly was happening with students upon entering the university setting that was leading to these divergent paths in their learning attitudes, behaviors, and overall academic performance?

Since I was a child I have loved learning. I became a teacher with the primary calling to utilize that love of learning to serve and support others in their own growth and development. I believe in the potential of every one of my students and want them all to become successful learners, both academically and for their future lives, to achieve their goals and dreams. Therefore, the above enigma led me to begin a self-learning quest, immersing myself into the literature of various different fields of study in the search for a satisfactory understanding of the key contributing factors that could be influencing my students' academic behaviors and performance. I hoped to find the answers to improve my teaching practices to better support them to become self-regulating, lifelong learners. Due to the positive influence and recommendations of key mentors and colleagues around me, I delved into the fields of general

education, second language (L2) learning, neuroscience, educational and positive psychology, and more recently sociocultural literacy and the learning sciences within this program and my minor. From these areas I acquired a wealth of knowledge, skills, strategies, and frames of thinking that have been invaluable in informing and improving both my teaching pedagogy and my views about learners and learning.

However, among all the content I encountered, it was my discovery of Carol Dweck's concept of Learner Mindsets from her book *Mindsets* that resulted in one of the biggest epiphany moments for me (this concept will be described in more detail later in this chapter and in Chapter 2). Rather than a deficit model approach to education that focuses on the intelligence and ability students have (or do not have) as the reason for academic variance, her concepts of fixed and growth mindset predominantly emphasized that it was the *beliefs* that students had about their own intelligence and ability that educators needed to focus more of their attention on. This resonated greatly with my experiences with past students I taught regarding their own beliefs; in their responses to the beginning-of-semester survey I always give regarding things they are worried about, students frequently have lamented that they were just "not good" or had "no talent" or "ability" at things like English, writing, public speaking, reading, or studying and learning in general. Until this point I had been operating under the assumption that I just needed to make my own lessons and teaching more clear and effective, and impart to students the "correct" study strategies and behaviors that would enable them to be successful; I had never even considered that all of that might be for naught if students held self-limiting mindset beliefs regarding their inherent intelligence/ability and potential to succeed in the first place, negatively influencing their academic behaviors and future success.

Within the EAP seminar courses I was tasked to teach at the universities I worked at—where I had full autonomy to design the curriculum—I decided to incorporate and explicitly teach students about the concept of learner mindsets, and their responses to it were incredibly positive. Within my end-of-semester reflection surveys many of my students shared that what they had found most shocking, interesting, and useful from the course was learning about these concepts of growth and fixed mindsets and how to apply them to all aspects of their lives. Until this point I had taken it for granted that all students believed that they could improve their ability, but many students shared that they had not known or realized this was possible for them, and a number shared they wished they had learned about this much earlier in their schooling. I felt I was on to something here, that this concept was an important piece to the puzzle of academic variance I was encountering in my students.

Yet something still felt like it was missing to me, and it was not until I began this LCLE program that I realized what it was. Learner mindset theory is predominantly situated within the field of educational psychology and cognitive perspective, and as such nearly all the research I came across focused on factors pertaining to learners' internal cognition, using quantitative measures of study such as Likert scales to gauge learner mindsets within individuals. However, student mindsets are not just developing in a vacuum; rather, they are undoubtedly being instilled and shaped by the multitude of sociocultural encounters and experiences learners have had throughout their lives. Finally, I had my "ah ha!" moment when I realized that this is what could be a contributing factor to the academic variance I was seeing in my students. All my students seemed to have similar backgrounds and were all intelligent and capable; but they also likely had vastly different experiences and interactions with their family, friends, teachers, peers, and society at large that likely resulted in them holding different mindsets, and thus enacting

different academic beliefs and behaviors in their daily lives. This is how I arrived at this dissertation study.

This project derived from the EAP Seminar course I had been teaching for several years, before the actual data collection for this study began in spring 2021. I have been experimenting with different types of class learning modules, activities, and assignments to best instill in my students learning strategies, a growth mindset, and various other research-backed competencies to help support them to be successful and accomplish their goals in both their academic and social lives. These included students' beliefs and experiences with academic identity, belonging, effort, goals, mistakes, failures, stress, negative thinking, and success, as well as the struggles they face in their lives, the affordances and constraints they encounter, and how they have responded to and managed all the above. This project will qualitatively explore students' responses to the learner mindset-related aspects of the curriculum that I designed for the teaching of academic study strategies and growth mindset modules. The curriculum aimed to enhance students' ability to self-reflect and think critically about these themes within their own lives. Students' self-reflection writings to the learning modules across the semester as well as a final end-of-semester course reflection interview will be analyzed to examine their lived experiences, beliefs, and the sociocultural factors that have influenced and continue to influence their mindsets and academic performance. I am authentically hopeful that this project will both promote my students' lifelong learning and provide insights into an under-researched demographic/population to assist myself and other practitioners in better understanding and supporting students' success.

Background and Statement of the Problem

It can be argued that one of the primary purposes of institutional education is to facilitate students' learning and adequately prepare them for both academic and future success (Dweck et al., 2014; Farrington et al., 2012). However, in recent years many have come to feel the current system is falling short of this purpose, with teachers, parents, and stakeholders expressing concerns as to whether students are being adequately equipped with both the necessary capabilities (i.e., knowledge, skills, abilities) and dispositions (i.e., beliefs, attitudes, and values) they will need for success in our modern and rapidly changing world (Lucas & Spencer, 2018). In addition, colleges and employers continue to lament the fact that incoming students "are woefully underprepared for what is needed of them to be successful" (Martin, 2021, p. 54).

Historically, educational systems have predominantly emphasized the importance of developing students' cognitive skills (i.e., intelligence), and this has been the prevalent basis for educational policies around the world (Datu et al., 2016; Gottfredson, 1997; Martschenko, 2017; Wanzer et al., 2019). Specifically, many policies have centered on the raising of academic standards through increased rigor in curricula and instruction, and the meticulous measurement of students' cognitive ability through the use of standardized testing/high-stakes tests and student grade point average (GPA), with these being used as predictors of their academic achievement and future academic success (Farrington et al., 2012; Garcia, 2014). These educational policies rest on the assumption that mastery and retention of content knowledge will equate to better readiness for higher education and future success.

Thus, within institutionalized learning centers around the world, standardized testing-focused practices have become staples. Being a major focus of instructional strategy, over time this has come to heavily influence the curricula taught within schools and shape the skillsets practitioners teach and students are required to acquire (Garcia, 2014; Watson, 2019).

Furthermore, educational policies often demand accountability of teachers and schools regarding these high-stakes tests, and many instructors, under scrutiny from stakeholders, feel compelled to "teach to the test," overemphasizing rote memorization of test content and performance comparisons across students (Haimovitz & Dweck, 2017).

However, in the past decade various researchers have brought into question the assumptions of these policies, stating they are having the unintended consequence of engendering a fundamental misconception about the kinds of capabilities and dispositions that are academically and socially valuable and should be privileged (e.g., Datu et al., 2016; Dweck et al., 2014; Farrington et al., 2012; Heckman, 2013). Recent data in the U.S. reveals a worrying trend of overall declines in students' motivation, engagement, and attitudes towards school and learning as they progress through the education system (Dweck & Yeager, 2019), with students becoming more and more "disengaged, stressed, depressed, and burned out" (Martin, 2021, p. 53) by their schooling and the pursuit of success. One reason for this is that over time students come to believe their results on assignments and tests are indicative of not only their current level of skill and knowledge, but also their inherent *lifelong* intelligence and ability (Haimovitz & Dweck, 2017).

A consequence of such a fixed view is that as students who struggle or fail to achieve high grades progress through school, they can become disheartened, over time losing confidence in their abilities and potential to succeed, resulting in disengagement from the learning process overall (Martin, 2021). Unsurprisingly, this negatively affects academic performance, as unmotivated students tend to study less, perform worse, and opt out of selecting more rigorous or advanced classes (Yeager et al., 2014), thus creating a vicious cycle. Left unchecked, this issue compounds as students progress through secondary and tertiary education and can represent "a

serious loss of human potential" (Dweck et al., 2014, p. 2), with negative implications for university and future life outcomes. Considering the importance of emphasizing the process of learning and fostering in all students a belief in their potential for growth through effort—rather than on inherent intelligence and ability—it is hard not to view these educational policies and practices as counterproductive (Haimovitz & Dweck, 2017).

Academic achievement is a multi-faceted and complex phenomenon, and while many students inevitably encounter similar kinds of academic challenges throughout their school years due to the standardized nature of institutional education systems, notable differences emerge in how effectively students adapt and perform which simply cannot be explained by their cognitive abilities alone (Lucas & Spencer, 2018). These differences reflect a key factor that has been lacking from most educational policy and school curricula: students' mindset toward learning (Limeri et al., 2020). Research has come to show that students' mindset regarding learning matters just as much, if not more, towards bolstering student academic achievement (e.g., García, 2014; Gutman & Schoon, 2013; Weissberg et al., 2015), and that investment in its development within schooling can result in improved educational outcomes (e.g., Dembo & Seli, 2013; Dweck et al., 2014; Farrington et al., 2012; Farruggia et al., 2018; Fitzgerald & Laurian-Fitzgerald, 2016). Thus, student success is more than just mastery of course content or high test scores; students must also be equipped with the necessary mindsets to adapt to and overcome the multitude of diverse challenges and demands they will encounter, both academically and in their future lives (Bernardo et al., 2016; Lucas & Spencer, 2018).

The Concept of Learner Mindsets

In the face of challenges and setbacks, students, even academically able ones, can struggle or fail to overcome them, negatively impacting their academic achievement and success.

However, some students seem to be more resilient towards challenges, able even to thrive in their midst (Dweck & Sorich, 1999; Henderson & Dweck, 1990). Stanford psychologist and researcher Carol Dweck is known as the progenitor of the implicit theories of intelligence, which has come to be known as learner mindset theory (Dweck, 1999, 2006, 2017). This theory, situated within the cognitive/psychological sciences, stemmed from earlier foundational research on the concept of lay theories (Kelly, 1955) of how individuals perceive themselves and others, and later from findings regarding learned helplessness (e.g., Diener & Dweck, 1978; Seligman & Maier, 1967), attribution theory (e.g., Weiner & Kukla, 1970; Weiner, 1985), goal theory (e.g., Dweck, 1986; Dweck & Leggett, 1988) and the concept of self-efficacy (e.g., Bandura, 1986). All of these theories expound how individuals explain to themselves or others why an experience or outcome happened, and how that explanation shapes their reactions and beliefs (i.e., their mindset).

A mindset is a belief that influences how we think, feel, and act (Dweck, 2006). It is akin to a lens that everything is seen through, which ultimately reflects our philosophy towards life or how the world works. For example, someone who holds a mindset that *the world is a dangerous place* or *people are liars* would think, behave, and experience life very differently from someone who holds a mindset that *the world is a safe place* or *people are trustworthy.* Similarly, decades of research by Dweck and other researchers has demonstrated that the way students think about themselves regarding their academic intelligence or ability can set them on different trajectories of motivation and learning, and is thus a crucial component in explaining the academic variance of why certain students tend to be more resilient and successful in the face of challenges than others (Dweck et al., 2014; Haimovitz & Dweck, 2017).

The concept of learner mindsets explains that for each situation students encounter, they are somewhere on a continuum between two opposing beliefs: a *fixed mindset*, which views intelligence and ability as largely being predetermined innate traits, akin to eye color or height, that cannot be significantly developed or improved, and a *growth mindset*, which views intelligence and ability as something that can be developed and improved with hard work, effective learning strategies, and dedication over time (Dweck, 2006, 2012, 2017). A growing body of literature has shown that the mindset students predominantly hold over the course of their education matters considerably, as they lead to vastly different behaviors and consequences, particularly regarding the types of goals they set (e.g., Dweck & Leggett, 1988; Hoyert & O'Dell, 2008) and how they view and respond to effort, challenge, setbacks, and failure (e.g., Dweck, 1999; Heine et al., 2001; Smiley et al., 2016). As a result, they have been shown to be strongly linked to students' persistence, motivation, and overall academic achievement (e.g., Aukerman & Chambers Schuldt, 2015; Dweck, 2012, 2017; Haimovitz & Dweck, 2017).

Importantly, a wealth of research has demonstrated that explicit instruction that introduces and then fosters a growth mindset in students can improve students' achievement over time (e.g., Dweck & Yeager, 2020; Paunesku et al., 2015; Yeager & Dweck, 2019; Yeager et al., 2016;). This means all students have the potential to learn and develop growth mindset orientation with the right instruction. The implications of this are significant. Resilience is crucial for adolescents' success in school and in life, and Dweck and others' research (e.g., Blackwell et al., 2007; Dweck, 2006; Dweck et al., 1995; Hong et al., 1999; Nussbaum & Dweck, 2008) shows that even among high-achieving students, a fixed mindset can compromise their academic and social success. Yet despite the influence students' mindsets plays in their education and lives, its importance continues to be overlooked, with there currently being few

educational policies that nurture them within mainstream schooling (Dweck et al., 2014; Garcia, 2014). Since the learner mindset a student has can have a significant influence on their academic attitudes, performance, and success, developing a growth mindset in young learners should become more of an explicit educational goal by both stakeholders and practitioners (Blake & Pope, 2008).

Theoretical Framework

The Need for a Sociocultural Perspective of Learner Mindsets

Epistemology is the branch of philosophy that concerns itself with the origins and nature of knowledge. With regards to student learning, the epistemological beliefs educators hold have been shown to be an important predictor of pedagogical outcomes (Schraw & Olafson, 2003). This is because epistemological beliefs govern (both explicitly and implicitly) educators' approach to nearly everything they do – from their view of what knowing and learning entail, to their curriculum design, instructional practices, and motivational strategies, to their expectations and assessment of student learning outcomes, to even their beliefs in the role students should play in the learning process (Soleimani, 2020). Over the years, different epistemological beliefs have resulted in the development of numerous educational theories, many of which hold divergent assumptions and predictions about student learning. Among these, two prominent and influential theories stand out, each providing unique contributions to the field of education – the cognitive perspective, which focuses on learners' mental processes, and the sociocultural perspective, which focuses on learners' participation in social practices within a particular context (Danish & Gresalfi, 2018).

The vast majority of research into learner mindsets is predominantly situated in the cognitive sciences, holding the perspective that understanding of conceptual thought and

behavior are located mainly within the mind of the individual. Therefore, most cognitive approaches to understanding deal separately with the person and the context, tending to focus on factors within the learner. However, this overemphasis of the individual learner is a major concern, as it "situates success as a personal endeavor, and fails to take into account sociocultural influences and barriers" (Keown & Bourke, 2020, p. 54), thus largely overlooking and/or discounting students' learning context(s) and culture.

Decades of educational research (see NAS, 2018) have come to clearly illustrate the integral interrelatedness of culture to learning, particularly that individuals learn in "culturally defined ways in culturally defined contexts" (p. 2). This has resulted in a key theoretical shift in educational research, in which the learner can no longer be viewed or understood as separate from his/her environment. Instead, all learning is seen as a social process that is shaped and fused by the cultural processes present within the learning environment itself. Culture is a living system and influences not only *what* people learn but also *how* they learn it. This influences cognitive processes that shape learning, altering how students ultimately come to understand and see the world. This even extends to what is desirable to learn in the first place, which can differ greatly across cultures, especially between home cultures and hegemonic academic settings where different cultural norms, values, and goals exist and may conflict. Therefore, a full understanding of how one learns cannot occur without considering cultural processes, since they can either promote or hamper learning, depending on the context and type(s) of learning valued.

While various perspectives and approaches exist today under the umbrella of "sociocultural theory," its origins derive from the work of Lev Vygotsky (Vygotsky, 1962, 1978, 2012), who brought to the forefront the critical role that context, culture and society play in cognitive development and the learning process overall (Broderick & Blewitt, 2010; Ryu &

Lombardi, 2015). An individual's mind, Vygotsky believed, could not be properly studied nor fully understood in isolation, but only as part of the greater whole, in conjunction with their environment (Swain et al., 2015; Vygotsky, 1962, 1978, 2012).

As such, human attributes in general, and mindset beliefs about intelligence and ability in particular, do not originate solely within the individual mind but rather are "appropriated from the social environment and enacted cultural practices, representing internalized cultural models" (Laurell et al., 2021, p. 5). The world we live in each day and our experiences within it are all socioculturally patterned, and who we are and how we develop stems from our engagement and the multitude of interactions we have within the world, the origin of this patterning (Markus & Kitayama, 2010). Thus a dialectical relationship between us and our social context is established, and it is through interactions at home, school, and work, with family and friends, as well as with the media and culture of our society at large that our mindsets are formed and shaped (Broderick & Blewitt, 2010; Ryu & Lombardi, 2015).

Sociocultural forces (i.e., norms, values, rules) both act upon and are acted upon by the individual, influencing what they think and believe and how they behave, thus making "learning, development, and education so fundamentally embedded in a social matrix that they cannot be truly understood apart from that context" (Goodnow, 1992, p. 178). As such, those seeking to better understand learner mindsets and support students' academic achievement need to consider a holistic approach that looks beyond the individual, to the dynamic and mutual relationships that social interactions and context-specific environments have in informing and shaping their thoughts and actions regarding who they are and what they are capable of as learners (Buzzetto-Hollywood et al., 2019; Hayes & O'Toole, 2017; Lin-Siegler et al., 2016). Part of this includes the dominant discourse(s) at work within students' learning environments.

High-Stakes Testing Discourses

As discussed earlier, high-stakes testing practices are a commonly employed tool of education systems, used to standardize and regulate what knowledge and skills (capabilities) are deemed valuable. For a country, education is viewed as "a vital investment in 'human capital'" (Čeplak, 2012, p. 1093), and ensuring students receive a "proper" education is considered a crucial undertaking for securing both the individual and society's future and success. As such, dominant discourses on education, shaped by educational policy, produce particular notions of what learning and success look like and how to assess it (Bradbury, 2019). These play a vital role in the learning beliefs, lived experiences, and academic performance of students. Due to the pressures exerted by these high-stakes tests and the policies that regulate their enforcement, teachers are required to "shape the content norms of their curriculum to match that of the tests" (Au, 2009, p. 66) to ensure that students do well, ultimately narrowing classroom curriculum practices. This also influences the strategies students are taught and the ways students come to conceptualize knowledge and learning, with teaching-to-the-test practices often utilizing shallow learning strategies such as rote memorization (Dodge & Silverberg, 2015).

Thus high-stakes testing has a considerable influence on the educational environment and on the lived experiences of students, since the standardization of knowledge and skills regulates and shapes "what are deemed as legitimate and illegitimate classroom discourses and identities" (Au, 2009, p. 67), producing certain acceptable ways of thinking, being, and doing. This can constrict student agency (May & Finch, 2009) and foster a "climate of constraint" (Cornbleth, 2008), hindering deep and meaningful learning as well as critical and creative thinking. Furthermore, this high-stakes testing climate perpetuates a culture of competition, which shifts the emphasis of schooling from prioritizing student needs to instead prioritizing student conformity and assessment through academic performance and scores (Čeplak, 2012).

"Dominant discourses shape models of the 'good' and 'bad' learner, which students are compared against" (Bradbury, 2019, p. 7), with students' sense of belonging and "worth" determined based on how well they conform to these models.

Thus, "discursive control constructs students in particular ways in relation to the classroom" (Au, 2009, p. 68), shaping their overall learning and views on what aspects of learning are valued in the school culture and what they need to do to be accepted. Within this neoliberal approach to achievement, students come to see themselves as either successful or not based on a narrow definition of what intelligence/ability looks like (i.e., high scores), and whether they have it or not (i.e., perpetuation of a fixed mindset). A consequence of such a fixed view is that as students who struggle or fail to achieve high grades progress through school, they can become disheartened, seeing themselves as not "smart enough" or capable within this dominant discourse. Such students may lose confidence in their abilities and potential to succeed, resulting in disengagement from the learning process overall (Martin, 2021), which can foster a fixed mindset, eventually negatively impacting their academic performance. As Haimovitz and Dweck (2017) explain,

> Considering how important it is to teach for understanding (rather than filling children full of facts and formulas) and to focus children on their learning process (rather than their inherent ability), we cannot help but think of forces in today's education that may be doing just the opposite. Children today are growing up in a world where performance on high stakes tests is often treated as a more important goal than deeper learning (p. 1856).

This is a noteworthy concern, with educators and students often having to prioritize the high-stakes testing discourse at the expense of a progressive learning approach that focuses on deep, meaningful, and practical learning.

Conflicting Discourses Regarding the Value of Effort

Another key force influencing the learner mindset students come to hold is the contradictory nature of two dominant societal discourses related to the value of effort and its role in success. The first common discourse promoted in school and throughout society in general is the overall importance of hard work for improving oneself and being successful. Throughout childhood and adolescence, students receive this message from various key socializers (e.g., caregivers, teachers, coaches) and mainstream media: that if they put in the time and work hard, they can achieve their goals and achieve success. Yet paradoxically, at the same time within these contexts a second antithetical dominant discourse exists– that of the idolization of "natural" intelligence and the valorization of "effortless" achievement (Jackson & Nyström, 2015). Within society, individuals who appear to have "natural" intelligence or ability are often praised and highly valued, lauded as "geniuses" who are able to achieve success without the apparent need for hard work. This insidious discourse fosters the underlying, often unconscious belief in students that effortless academic achievement equals authentic intelligence and ability.

This effortless achievement discourse gets especially reinforced within a high-stakes testing context. Students who struggle with high achievement while constantly seeing their peers succeeding over time may come to believe they lack the natural intelligence/ability that others around them seem to have (Dweck, 2006, 2017). They also come to think that because intelligence is an innate trait, it is largely unchangeable, and effort cannot have much of an effect. These perceptions of intelligence and effort ultimately play an integral role in their approach to learning and how they respond to and deal with setbacks and failure experiences. Räty et al. (2004) explained these conflicting discourses as two different spheres of education within schools. The first, the promotional sphere, pertains to the goal of all schools to develop and foster the knowledge, skills, and competencies of all students, and to instill in them lifelong

learning strategies and a belief that they can always grow and improve. In conflict with this is the second sphere, the restrictive sphere, which pertains to the high-stakes testing culture and assessment practices of schools to evaluate, rank, and value students' knowledge and abilities. The promotional sphere of education can clearly be seen as trying to establish a growth mindset perspective in students, while the restrictive sphere of education and its associated practices run counter to this, promoting fixed mindset beliefs about intelligence and ability in students.

Thus, these competing spheres can create a paradox within schools and the learning process. Immersed in these two discourses, all students hold elements of both views of effort to varying degrees. However, which of these perceptions students come to predominantly believe derives from which of these discourses is dominant within their context and culture—the beliefs of those around them and the lived experiences they have (Mercer & Ryan, 2010; Murphy & Dweck, 2010). Within the restrictive sphere, students' beliefs about the malleability of their intelligence/ability become more pessimistic as they progress through their schooling, since they develop their sense of academic competence predominantly from their success on these normative assessment practices (Kärkkäinen et al., 2008). These institutionalized categorization practices can lead students to internalizing a fixed mindset (Laurell et al., 2021), which can gradually come to limit/hinder their beliefs in themselves and negatively impact their overall academic performance. Dweck (2014) explains that "students with a fixed mindset are threatened by challenges, effort, and mistakes, for these are the things that threaten to reveal the limits of the students' ability" (p. 12). Thus, "the very environments that foster growth mindsets are under threat and, ironically, they are under threat by the very policies that are meant to insure a quality education for all" (Haimovitz & Dweck, 2017, p. 1857). Ultimately, the paradoxical interplay of these competing discourses in educational contexts underscores the delicate balance between

fostering growth mindsets and inadvertently perpetuating fixed mindsets, with potential consequences for students' beliefs in their abilities and academic performance.

Study Purpose and Significance

Learner mindsets and the sociocultural factors that influence and shape them play an important role in students' academic and future outcomes. Learning more about them, how they manifest in students, and how to foster their development is necessary to effectively inform educational pedagogy and policy. Currently however, most of the existing literature and research in this area is in the field of cognitive science/psychology and stems predominantly from populations within Western, educated, industrialized, rich, and democratic (WEIRD) nations, particularly the U.S., with evidence from non-WEIRD populations lacking (Bühler et al., 2020; Henrich et al., 2010**;** King & McInerney, 2014). An analysis of research within six premier American Psychological Association (APA) journals revealed that in general more than 80% of study participants consisted of WEIRD populations, yet they account for at most only 12% of the world's population (Arnett, 2016). The cognitive approach seeks to create generalizable models, so research results from these Westernized countries are often held to be the norm. Yet they are hardly representative of humans as a species, casting uncertainty on how far psychological findings from such studies can be generalized (King & McInerney, 2014; Wanzer et al., 2019).

As discussed above, the sociocultural perspective posits that development is largely socially mediated, thus it plays an integral role in how people develop and operate in various contexts (King & McInerney, 2014). Stemming from this, it logically follows that there may be relevant and valuable differences among different nationalities, as well as people raised in different cultures which have influenced their learning and learner mindsets (Broderick & Blewitt, 2010). Research into more diverse populations within non-WEIRD cultural contexts is

needed because it can provide contextually-specific insights into how "variations in beliefs and socialization practices across cultures affect variations in [students'] mindsets" (Haimovitz & Dweck, 2017, p. 1855).

Thus the purpose of this study is to contribute to this gap by researching such a context: a high-level national university in non-WEIRD country, Japan. Similar to the U.S. and other WEIRD countries, Japan is a highly educated and industrialized wealthy democratic nation, and its education system—which has been influenced by the U.S. post World War II— and the inherent issues it currently faces similarly reflect those described earlier. However, Japan also has thousands of years of its own history and has been shown to have a moderately large cultural distance from the West (Muthukrishna et al., 2020). Japan has its own distinct culture, norms, and beliefs, all of which likely influence the skills students learn and that are valued by society.

Additionally, perhaps even more so than the U.S., Japan has a demanding education system that places a large emphasis on the measuring of students' cognitive abilities and intelligence through standardized testing, particularly towards preparation for the university entrance exams, which determines not just the university a student can attend but often also their future job potential and social status (Stewart, 2016). The importance of these tests is thus seen as heavily influencing secondary education practices, particularly the content and skills learned by students (Kuramoto & Koizumi, 2018). Yet while university admission procedures continue to rely on rigorous entrance exams to measure students' cognitive ability and predicted future academic achievement, these measures have shown to be inadequate to account for the wide range of academic variance that occurs across students while in university, or to predict their sustained success (Lucas & Spencer, 2018).

This emphasis of testing within schooling has also resulted in Japan's education system struggling with declines in student motivation, engagement, and tenacity (Chen et al., 2021; Kikuchi, 2019). In recent years, Japanese universities have fallen in international exam and ranking standings, lagging behind their Asian neighbors China, Hong Kong, South Korea, and Singapore as well (Rafferty, 2016), with critics citing as a reason that educational institutions are not adapting to the times and teaching students the skills they will actually need to be globally competitive in the future (Stewart, 2016). Japanese companies have also echoed these concerns and expressed that university graduates have insufficiently acquired the competencies that they expect in their employees (Okamoto et al., 2016). There is a growing need for a shift in the competencies that Japanese schools are currently emphasizing and those that students will need for their future. In lieu of these similarities and differences, I am interested in investigating how the concept of learner mindsets within the existing WEIRD body of literature looks in relation to my particular teaching context, Japanese university EAP students.

Methodology Overview and Research Questions

This study will employ a qualitative research design. Specifically, I will use an embedded single-case interpretive case study design as the methodology for this study, with the Course (a 16-week EAP Seminar about study strategies, learner mindsets, and positive psychology; see Chapters 3 for details) positioned as a single case, with purposefully selected participants as embedded cases. In this study I seek to better understand holistically Japanese university students' learner mindsets, utilizing the lens of sociocultural theory. Using students' explanations and stories about their lived experiences from weekly reflection writings and end-of-semester final reflection interviews, I will strive to uncover what challenges they face academically, how they respond to them (i.e., their mindsets/meaning system about learning), as well as the

sociocultural factors in their environments which have been influential in their formation. Additionally, I hope to learn firsthand from students what or who has helped and hindered their academic performance and achievement, in order to improve my teaching pedagogy and aid myself and other practitioners in more effectively supporting student learning.

This study is distinct from the existing research in several ways. Past studies of learner mindsets have largely focused on K-12, low-to-mid socioeconomic status, minority or academically at-risk student populations in WEIRD countries, and predominantly used quantitative research approaches such as Likert scale surveys and scales for data collection. In contrast, the current study will take place with a relatively unexplored population: a high-level national university in a non-WEIRD nation, Japan, with Japanese EAP students from predominantly mid-to-high socioeconomic backgrounds. Additionally, it will utilize a qualitative research approach to provide rich and detailed information about students' lived experiences and better shed light on how learner mindsets manifest in this population and what sociocultural factors are described by students as influential. It also strives to better understand the struggles students face in their academic and daily lives, and how their mindsets and behaviors may be positively or negatively impacting their academic success.

Research Questions

This study examines the following two research questions:

1.) What aspects of learner mindsets/meaning systems do Japanese university students demonstrate regarding their beliefs and behaviors to academic challenges and setbacks?

- Why? What key influential socializers and lived experiences (e.g., affordances/constraints) do students identify as having shaped their learner mindset/meaning system beliefs and behaviors?

2.) In what ways do Japanese university students describe the Japanese education system as fostering or hindering a growth mindset/meaning system?

- According to students, how can a growth mindset/meaning system be better fostered at school?

Organization of the Study

Chapter One provides an introduction and overview of the study. It outlines the problem, purpose, and significance for this study, defines the theoretical framework, research questions, and the background, positionality, and role of the researcher. Chapter Two gives a review of the literature, discusses gaps in the literature, the overall study rationale, and how it will add to the existing knowledge on this topic. Chapter Three describes the research methodology proposed, the context/setting of the study, data collection and analysis procedures, as well as the role of the researcher and potential ethical issues. Chapters Four and Five contain a thematic analysis of the data for research questions 1 and 2 respectively, and Chapter Six a discussion of the research findings. To conclude, Chapter Seven presents educator implications and recommendations, Chapter Eight the delimitations and recommendations for future studies, and Chapter Nine the study Conclusion.

CHAPTER 2: Literature Review

In this chapter, I first summarize the concept of learner mindsets and the fixed and growth mindset meaning systems (from the cognitive perspective), and the influence each of these have on students' academic beliefs, behaviors, and performance. Following this, I highlight a key issue in the literature: that learner mindsets have been studied almost exclusively from the cognitive perspective, predominantly focusing on internal factors of students using quantitative measures. I will explain why this is an issue and argue for the need to balance this research with studies utilizing a sociocultural perspective and qualitative methodologies.

I then summarize the literature on how learner mindsets are socially formed, the contextual factors and key socializer practices which shape them, and how practitioners can explicitly foster a growth mindset in learners. To conclude, I revisit the major gaps in the existing research and explain the purpose of my study to contribute toward addressing them.

Cognitive Perspectives on Learner Mindsets

A burgeoning body of research in the fields of psychology and education over the past several decades by Stanford professor and researcher Carol Dweck and her colleagues has revealed that students' academic success can be greatly impacted by their beliefs, attitudes, and values toward the learning process (see Burnette et al., 2013; Dweck, 2006; Haimovitz & Dweck, 2017; Yeager & Dweck, 2012). This concept of learner mindsets is situated in the cognitive perspective, which posits that changes in conceptual understanding, strategies, and skills are located mainly within the mind of the individual (this is contrasted with the sociocultural perspective in a later section). Dweck's early work investigated the patterns of behavior connected to learners' motivation, particularly what caused different learning outcomes in students and why some students were more resilient than others. She and other researchers

found that the perceptions students have regarding the malleability of their intelligence/abilities play a powerful role in shaping students' motivation and behaviors regarding learning and in helping to explain why academic variance in student performance and success occurs (see Dweck 2006, 2017; Dweck et al., 2014).

Dweck argued all learners are somewhere on a continuum between two opposing beliefs: a fixed mindset, in which they view their personal characteristics as predetermined innate traits (i.e., "natural" intelligence), largely fixed and unable to be changed or increased, or a growth mindset, in which they view their intellectual intelligence and ability as malleable and dynamic, something that can always be further developed (e.g., Dweck, 1999, 2006, 2017). Research into this concept of learner mindsets has looked into explaining why individuals differ on motivation and achievement and found that which of these mindsets students predominantly hold over the course of their education can lead to vastly different behaviors and outcomes (e.g., Dweck & Yeager, 2019; Yeager & Dweck, 2020).

Fixed and Growth Learner Mindset Meaning Systems

There are several key interrelated factors that make up learner mindsets, and these both influence and are influenced by students' prevalent views and behaviors about certain aspects of the learning process, ultimately resulting in them holding more of a fixed or growth mindset and influencing their academic performance (Lou & Noels, 2016; Romero et al., 2014). These factors relate to how students tend to attribute their successes and struggles (natural ability vs. hard work; e.g., Deiner & Dweck, 1980; Dweck, 1999**;** Smiley et al., 2016; Yeager & Dweck, 2020), their perspective on effort (as productive or unnecessary; e.g., Blackwell et al., 2007; Dweck et al., 2014; Yeager & Dweck, 2012), the types of educational goals they set (learning vs validating their ability; e.g., Dweck, 2006, 2012; Dweck & Leggett, 1988; Haimovitz et al., 2011; Yeager

& Dweck, 2020), and how they handle and respond to the challenges they encounter (mastery-oriented vs. helpless-oriented; e.g., Cury et al., 2006; Heine et al., 2001; Hong et al., 1999; Limeri et al., 2020).

This interrelated association between one's learner mindset and these associated beliefs fosters a distinct *meaning system* in students that guides how they make sense of their abilities and their behavioral and emotional responses to educational experiences and setbacks. Fixed and growth mindset meaning systems form a continuum, with students existing somewhere along it based on how strongly they hold a fixed or growth mindset (see Figure 1).

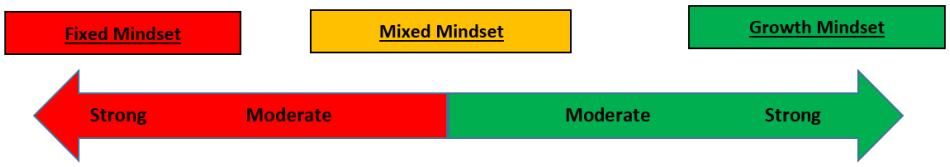

Figure 1. Cognitive Psychology Model of a Learner Mindset Continuum

These meaning systems help explain why students of similar capabilities often respond differently to the same situations, and the effects this can have on their academic performance and achievement (Dweck & Yeager, 2019; Lou & Noels, 2019; Yeager & Dweck, 2020; see Table 1).

Table 1. Fixed and Growth Mindset Meaning Systems (adapted from Lou & Noels, 2019)

	Strong Fixed Mindset Meaning System	Strong Growth Mindset Meaning System
Theory of intelligence/ability	Defines ability in terms of fixed inherent capability	Defines ability as an indicator of their current level of expertise, which can be improved with effort
Effort beliefs	**Negative** Exertion of effort reflects one's lack of natural talent; effort cannot compensate for a lack of talent	**Positive** Effort is the key to improvement and the means to mastery
Outcome attributions	**Uncontrollable, innate factors** Successes are attributed to one's own talent, and failures are attributed to a lack of natural ability	**Controllable, blend of factors** Successes are attributed more to context-specific hard work and strategies than just innate talent; failures are attributed to insufficient effort and/or poor strategies
Goal orientation	Stronger focus on performance goals (proving their intelligence/ability) or avoidance goals (avoiding performing poorly)	Stronger focus on learning goals (improving their ability)
Challenge beliefs	**Anxiety** Tends to avoid challenges; afraid of mistakes/failure; Anxious of being evaluated or judged poorly by others	**Confidence** Embraces and enjoys challenging tasks, confidence in self to improve and overcome setbacks
Self-regulatory strategy to setbacks	**Priority: protect self-esteem** avoid similar situations; seek easier tasks; engage in downward comparisons	**Priority: improve ability** learn from mistakes, seek out help, try new strategies
Response to feedback/criticism	Ignore useful negative feedback	Learn from feedback
Response to failure	Tendency to give up or avoid similar tasks in the future; seeks to protect self-esteem (e.g., downward comparisons)	Work harder and smarter

Although decades of neuroscience research (see Doidge, 2007; Dubinsky, 2010; Faulkner et al., 2008) has revealed that our brains are malleable and can continue to be developed throughout our lives, many students continue to "mistakenly think that intelligence is determined at or before birth by their genes, and that their effort will not significantly change their potential for academic success" (Willis, 2010, p. 61-62). The fixed mindset stems from this false belief and can result in a cascade of interrelated beliefs and behaviors, creating a meaning system in students that may ultimately hinder their academic performance.

A large body of research (see Dweck 2006, 2017; Lou & Noels, 2019; Yeager & Dweck, 2020 for reviews) has demonstrated that students with a strong fixed mindset meaning system demonstrate overall effort-as-negative views, success and failure attributions to uncontrollable innate ability, performance or avoidance goal tendencies, defensive regulatory tendencies in the face of adversity, and lowered resilience to failure. Because fixed mindset students believe their intelligence/ability is fixed and cannot be developed—you either "have it" or you don't—they tend to attribute their academic performance to their natural traits. Successes are viewed

predominantly as a result of being “smart” and talented, while poor performance and failure experiences are attributed to an inadequacy of intelligence/ability and viewed as a sign of inherent incapability in that area. Effort is seen as largely negative and a sign of low ability within this meaning system since it indicates a lack of “natural” talent. It is something one needs only if one is not good enough, and is believed to be largely ineffective due to the fixed nature of one’s capabilities (e.g., Blackwell et al., 2007; Dweck et al., 2014; Lou & Noels, 2016).

As a result, fixed mindset students often worry about how much intelligence/ability they have. This can result in a preoccupation with looking smart and/or avoiding looking stupid within learning situations, with appearances and validating one’s intelligence/ability often taking on increased importance (e.g., Dweck, 2006, 2017; Dweck & Yeager, 2019; Hong et al., 1999; Nussbaum & Dweck, 2006). These students tend to focus on either performance goals, demonstrating their ability to themselves and others through positive performance (e.g., high test scores and grades), or avoidance goals, avoiding or disengaging from situations and tasks where they might make mistakes and look “stupid” or feel embarrassed (e.g., Dweck & Leggett, 1988; Dweck, 2006, 2017; Yeager & Dweck, 2020). This self-validation motive leads to feeling overly anxious when facing challenging situations because of the fear of making mistakes or being evaluated negatively, which can ultimately distract students from meaningful learning (e.g., Dweck, 2006, 2017; Robin & Pals, 2002).

Furthermore, students with a fixed mindset meaning system are more fragile to setbacks, mistakes, and failures, because they view these failure experiences as indicative of who they are as a person (i.e., an overall lack of intelligence/ability), rather than to just contextual or controllable factors like insufficient effort or a faulty study strategy. This makes them vulnerable to negative feedback, and even when areas for improvement are pointed out they may ignore

them as pointless or futile (e.g., Hong et al., 1999; Nussbaum & Dweck, 2006). As such, they are less resilient in the face of mistakes/failures and view them as largely injurious to their sense of identity, because their fixed mindset beliefs cause them to feel there is not much they can do about this lack of ability. Thus, in an effort to protect their self-esteem from negative evaluations, they may avoid similar challenging situations in an attempt to hide their weaknesses, engaging in self-limiting behaviors such as avoiding effort and downward comparisons with others who perform worse than they did (e.g., Dweck, 2017; Dweck & Yeager, 2019; Hong et al., 1999; Nussbaum & Dweck, 2006). If failure experiences continue, over time students' outlook towards learning is negatively impacted, with them coming to believe that success is out of their control and becoming failure-accepting, further withdrawing from learning.

In contrast, individuals with a growth mindset view intelligence and ability as something that can be developed and improved with hard work, learning, and dedication over time. As such, students with a strong growth mindset meaning system demonstrate effort-as-positive views, success and failure attributions to controllable factors such as effort and study strategies, learning/mastery goal tendencies, self-improvement regulatory tendencies in the face of adversity, and higher resilience overall to failure experiences (see Dweck 2006, 2017; Lou & Noels, 2019; Yeager & Dweck, 2020 for reviews). Students with a growth mindset focus on increasing their ability and are more likely to believe in "the utility of effort versus the futility of effort given difficulty or low ability" (Blackwell et al., 2007, p. 247). As such, they predominantly attribute their successes and failures more to controllable, malleable factors such as their hard work and use of effective study strategies than to having a fixed and uncontrollable amount of natural intelligence/ability.

When setting goals, rather than an emphasis on performance comparisons with others and proving their existing ability, strong growth mindset students tend to focus more on mastery/learning goals, instead concentrating their efforts on learning and mastering the academic content. They tend to undertake and even enjoy tasks that offer challenges, as these are perceived as a necessary component of growth and self-improvement (e.g., Dweck & Leggett, 1988; Dweck, 2006, 2017; Yeager & Dweck, 2020). For them, mistakes and setbacks aren't seen as evidence of a fixed low ability but rather as valuable learning opportunities, offering information and insights into improvement. Due to this, they tend to be more resilient to mistakes/failures and better able to sustain motivation and persistence on difficult academic tasks (e.g., Dweck, 2006, 2017; Hong et al., 1999; Robins & Pals, 2002). This self-improvement motive leads them to mastery-oriented behaviors, such as devoting more effort to their learning, and other positive self-regulatory responses such as changing learning strategies and seeking additional resources and help to ensure not making the same mistakes again (e.g., Blackwell et al., 2007; Dweck & Yeager, 2019; Hong et al., 1999).

To summarize, the beliefs that students hold regarding learning can influence their motivation and persistence and have a profound effect on their academic performance (Dweck, 2006, 2017; Gutman & Schoon, 2013; Murphy & Gash, 2020). Their growth or fixed learner mindset beliefs about the nature and malleability of intelligence/ability can lead to drastic differences in academic performance and achievement because of the different meaning systems they create, which influence how students think, feel, and behave throughout the learning process (Lou & Noels, 2019; Yeager & Dweck, 2020). The fixed mindset meaning system overall promotes more maladaptive effort, challenge, and setback beliefs, outcome attributions, goal orientations, self-regulatory tendencies, and emotional experiences, while the growth mindset

meaning system is the opposite, comprising resilient attributions, positive effort beliefs, and learning goals, all of which foster positive academic performance tendencies (Dweck & Yeager, 2019; Yeager & Dweck, 2020).

Understanding Learner Mindsets from a Sociocultural Perspective

As discussed above, a large body of research within the cognitive sciences over the past several decades has come to show that psychological factors such as students' mindsets about their intelligence and abilities and their beliefs about school and learning in general impact their academic performance. The cognitive approach seeks to create generalizable models that can explain these psychological factors and from this uncover what motivates learners, how, and why. As such, most cognitive approaches to understanding learner mindsets attempt to separate the person and their context, tending to focus mainly on factors within the individual student. However, "people live in vast social realities that shape how they see the world around them" (Laurell et al., 2021, p. 7); learner mindsets do not form and exist within a social vacuum, but in conjunction with one's social environment and the values, beliefs, and norms present (King, 2022).

Thus a more holistic approach to better understanding students considers not just internal factors but external, contextual variables as well. This is because mindsets are "not all-or-nothing—they are conceptualized as being on a continuum from fixed to growth, and people can be at different parts of the continuum at different times" (Yeager & Dweck, 2020, p. 1272). Student mindsets can and do change in different contexts and situations, reflecting patterns from the dominant discourse and the group they are seeking to belong to at a given time (Lou & Noels, 2019). Therefore, it is necessary to consider where students' learner mindsets and

meaning system beliefs and assumptions originate, and how they are shaped by their sociocultural contexts.

In contrast to cognitive approaches where context is either ignored or isolated from mindset variables, sociocultural approaches to learning take a situative approach (Sinatra et al., 2015), viewing the learning context as inseparable from the learner. In this view researchers and educators consider not just the unique characteristics of each individual, but also the unique characteristics of their classes, school, communities, and culture, the affordances and constraints available, and the influences they have overall, with mindsets being attributed to and distributed across both people and contexts (Farrington et al., 2012; Nolen et al., 2015). Students' learner mindsets are not a set of predetermined cognitive characteristics that resides within their mind, but rather are a product of the multitude of everyday interactions they have within their sociocultural environments, which shape and influence them based on the values, attitudes, and practices of the dominant discourse. Therefore a sociocultural approach to studying learner mindsets seeks to investigate the relationship between students' internal psychological beliefs and the wider sociocultural practices within their learning environments, and how the latter influences the former (Haimovitz & Dweck, 2017; Howarth, 2006). These sociocultural connections are essential to effectively understanding how students' mindsets are formed and shaped, and to create strategies to effectively promote and foster a growth rather than a fixed mindset in them (Laurell et al., 2021).

Socialization of Learner Mindsets

There are a multitude of factors that influence variance in academic achievement, many of which are outside the control of educators. Yet research shows that the learner mindset students possess plays a pivotal role in their academic and social outcomes (Dweck et al., 2014;

Garcia, 2014), and most importantly these factors are malleable and teachable, thus allowing for the potential to foster them in all students to aid them in their future. However, while research over the past few decades has demonstrated the role mindsets have on students' academic achievement, much less is known about how these mindsets manifest: how are they shaped by sociocultural influences? And how can practitioners develop a growth mindset in their students? (Camden, 2014).

Students' learner mindset and the beliefs they hold about their ability and success are shaped by the conditions of the environments students find themselves within, particularly which sociocultural influences and dominant discourses are prevalent. According to Hecht and colleague's (2021) "Beliefs + Supportive Context" Hypothesis, students' learner mindset beliefs are only part of the equation; rather, the effect of their beliefs and even which belief they will predominantly hold and act on (i.e., fixed or growth) depends on the affordances or constraints within their learning context(s). As the authors explain,

> Beliefs are our packaged mental representations of the world as we experienced it, but they also shape how we engage with the world going forward—how we interpret what happened, what we expect to happen next, and which actions make sense in light of our interpretations……Thus, beliefs are an effect of our socializing environments on the one side and a cause of our future development on the other, yet still dependent on our contexts (p. 171).

As such, learner mindsets, rather than existing solely within students' minds, are more like a general tendency to make a certain situational appraisal. The cues and features of the learning contexts and environments students traverse play a pivotal role in which beliefs get triggered, when, and why. It is thus necessary for practitioners to understand where mindsets

come from and what sociocultural influences affect them in order to best adapt their teaching pedagogy to construct a classroom culture that instills and fosters a growth mindset (Figure 2). Particularly, a body of literature has come to show that the dominant discourse about learning and the beliefs and actions of key socializers—teachers and parents—in students' environments play an influential role in shaping the learner mindset they come to hold and enact.

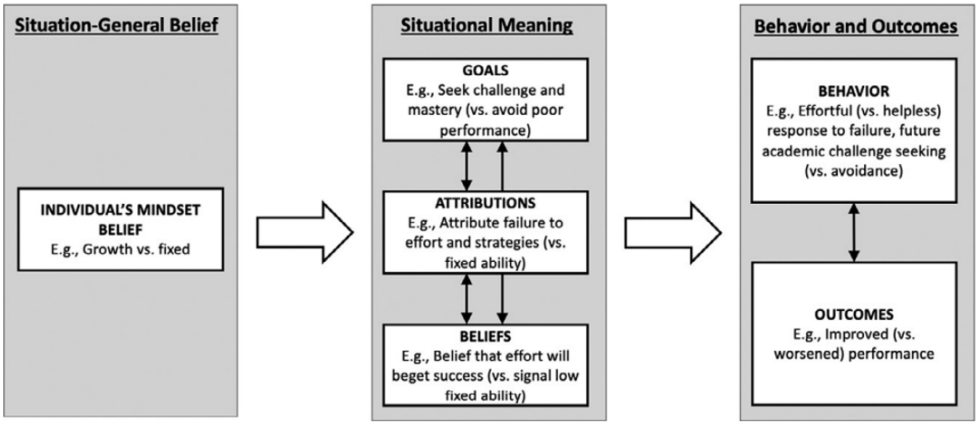

Figure 2. How students' mindset beliefs affect meaning systems and their academic behavior and performance within a context (adapted from Hecht et al., 2021)

Mindset Cultures in Classrooms: The Influence of Teachers' Mindset Beliefs on Learners

A number of findings have demonstrated that the learner mindset a teacher predominantly holds can directly influence learners' own mindsets (e.g., Jose & Bellamy, 2012; Lee, 1996; Muenks et al., 2015; Rattan et al., 2012; Yeager et al., 2022). In her study of elementary school teachers and students, Lee (1996) showed that teachers with a fixed mindset belief tended to judge students more in terms of their current ability, and were biased in their feedback and treatment of students based on their perceived competence in the content. In contrast, teachers with a growth mindset emphasized students' development through effort feedback, and were more likely to treat all students equally and fairly. Lee explained how teachers with a fixed mindset can come to have low expectations for some students after poor academic performance,

and that this gets conveyed to the students through their feedback and actions. Over time this can negatively affect students' self-efficacy and inhibit their motivation and potential for learning, ultimately instilling in them a fixed mindset about their ability. This creates a vicious cycle and self-fulfilling prophecy, as students' low achievement feeds fixed mindset teachers' continued low expectations of them and subsequent negative feedback and responses.

In Rattan and colleague's (2012) study of university undergraduates, they also revealed that compared with growth-mindset teachers, instructors who held a predominantly fixed mindset more readily judged struggling students to have low ability, reported low expectations for their future work, and engaged in pedagogical practices that led to a reduction in student engagement. In another example, Yeager and colleague's (2022) study showed that teaching 9th-grade grade students a growth mindset helped to raise their overall grades, but only for students who were also in classrooms with teachers who espoused a growth mindset as well, with students in fixed mindset classrooms showing no meaningful gains. However, when these students joined a classroom with a growth mindset teacher, they then demonstrated achievement gains. The authors explained that it is not just individual student beliefs that matter, but also the affordances (or lack of) available to learners within the specific classroom culture each teacher constructs based on their own mindset views, which create the possibility for a growth or fixed mindset to manifest.

Additionally, various studies have also demonstrated that an instructor's predominant orientation toward either learning or performance practices also impacts students' mindsets (e.g., Muenks et al., 2020; Park et al., 2016; Sun, 2015; Yeager et al., 2022). For example, Sun's (2015) study about these two types of teacher practices revealed that teachers' beliefs about their learners' ability and how they operationalized this belief in their words, behaviors, and feedback

influenced students' own mindsets and academic behavior. Teachers who taught for understanding and engaged in practices that emphasized the learning process and students' development (e.g., giving feedback that deepened students' understanding, supporting their progress toward learning goals, framing setbacks as part of the learning process, providing opportunities for them to revise assignments, etc.) promoted a growth mindset culture within their classrooms. In contrast, teachers who predominantly emphasized students' current ability (e.g., used ability tracking, communicated different expectations based on students' achievement levels, engaged in social comparisons, praised high-performing students, etc.) created a classroom culture that promoted fixed mindset beliefs in students.

In Muenks et al. (2020) the authors discovered that when undergraduate students perceived their professor as having a fixed mindset (through his/her performance-oriented practices), it resulted in higher psychological vulnerability in the classroom environment. Across the semester these students reported higher levels of stress, negative affect, and a lower sense of belonging, and this had downstream consequences of lower class attendance, motivation, engagement, and overall achievement for them. However, when students felt their professor had a growth mindset (through his/her learning-oriented practices) the opposite was true; over the semester psychological vulnerability was reduced, resulting in less stress, greater motivation, engagement, and academic performance, as well as a higher sense of belonging. The professors' mindset and accompanying attitudes and practices served as a situational cue, triggering students' own fixed or growth mindset, and shaping their own learning attitudes, behaviors, and either supporting or hindering academic performance and achievement. Thus, these studies illustrate the power teachers have in shaping students' academic performance through the

dominant discourse they promote (i.e., restrictive or promotional) and the mindset culture they construct in their classrooms (Hecht et al., 2021).

Influence of Socializers' Responses to Learner Success and Setbacks

A body of literature has also established that the type of feedback and praise socializers provide learners can directly impact their mindset beliefs and performance. Surprisingly, studies have discovered that telling learners they are smart can actually promote more of a fixed mindset, while focusing feedback on their work ethic and learning process fosters a growth mindset (e.g., Gunderson et al., 2013; Kamins & Dweck, 1999; Mueller & Dweck, 1988; Pomerantz & Kempner, 2013; Yeager & Dweck, 2012). As an example, Mueller and Dweck (1998) conducted six studies investigating the effects of intelligence (person) feedback/praise and effort (process) feedback/praise on 5th grade children after a success and subsequent challenges. The students were first given a task that they did well on and congratulated for scoring highly. Then they each received one of the above two types of praise, tying the reason for their success to either their intelligence ("You must be really smart!") or their effort ("You must have worked hard!"). The students praised for intelligence came to demonstrate fixed mindset tendencies, seeing their intelligence as a fixed trait. In subsequent tasks, they first rejected undertaking a challenging activity they could learn from in lieu of an easier one they could demonstrate their smartness on. Also, after struggling on a harder task they gave up more easily, interpreting their difficulty as a result of an inherent lack of intelligence and ability.

In contrast, the students praised for their effort in the process of learning came to hold more of a growth mindset, believing that they could develop their intelligence and ability through hard work. In the subsequent tasks, they predominantly chose to undertake the more challenging one over the easier one, and later when they struggled on the harder task they did not

attribute this to a lack of ability, resulting in them sticking with it longer, reporting enjoying it more, and overall outperforming the fixed mindset group. The authors explained that counterintuitively, intelligence praise influenced the first group of students to hold a fixed mindset, attributing their success and failure to inherent ability; easy success meant they were smart, and setbacks/failure meant they were not. This resulted in these students focusing on performance goals, to "prove" they were smart over learning goals and having impaired motivation and subsequent performance following failure experiences.

Similarly, how socializers respond to learner setbacks or failures can also affect their ensuing academic behaviors (e.g., Gunderson et al., 2013; Haimovitz & Dweck, 2016; Haimovitz et al., 2016; Hooper et al., 2016; Muenks et al., 2015; Park et al., 2016). In their study of home environments, Muenks and colleagues (2015) looked at parents' learner mindsets and how they interacted with their children when they encountered academic setbacks. They found that parents who held more of a fixed mindset tended to view their child's abilities as largely immutable, were more likely to engage in controlling and performance-oriented behaviors after their child had an academic setback, and participated less in academic activities at home to help their child improve, which resulted in their child holding more of a fixed mindset. Conversely, growth mindset parents tended to demonstrate an enduring belief in their child's ability to improve despite setbacks, and thus were more likely to engage in autonomy-supportive and learning-oriented behaviors at home to help them learn from the setback and grow, ultimately fostering growth mindset tendencies in their child. The authors explained this was because the children, feeling their parents' trust and support, learned to make their own decisions. Even when encountering setbacks, they still believed in themselves and the value of effort for success, leading to more help-seeking behaviors and a higher resilience in the face of challenges.

Additionally, in their studies of 5th-grade students and their parents, Haimovitz and Dweck (2016) found that parents' beliefs about setbacks/failures and how they responded to their child in these situations predicted which learner mindset their child would come to hold. They showed that parents largely viewed academic setbacks and failure as either potentially enhancing, something that their child can learn from and use to improve and grow (ability can grow; growth mindset), or as debilitating, something that hurts learning and growth and should be avoided (ability is fixed; fixed mindset). Rather than parents' own predominant learner mindset belief, it was their response to failure as either motivating or demotivating that most influenced their child's own learner mindset. Similar to the earlier studies on person vs. process praise/feedback, children whose parents supported them when they encountered setbacks by focusing on learning and improving came to believe their capabilities could grow, which promoted a growth mindset. Conversely, children whose parents scolded them, worried for them, or pitied them after academic setbacks came to believe their capabilities were fixed, promoting a fixed mindset.

Taken together, the literature shows that through their words, actions, and the learning culture environment they construct, key socializers such as teachers and parents can alter students' perceptions about the nature of intelligence/ability, shaping their beliefs and actions regarding the learning process and creating conditions that foster either a fixed or growth mindset (Haimovitz & Dweck, 2017). This predominantly occurs through socializers' own learner mindset beliefs, which get signaled and operationalized by the value placed on students' growth and development, their responses to learner success, struggle, and failure, and the opportunities they provide for practice, revision, and support (Hecht et al., 2021; Kroeper et al., 2022). The above studies illustrate that learner mindsets depend on and are constructed by the

dominant discourse(s) enacted and valued within a given learning context. This creates certain cultural norms and expectations that socialize and shape students' learning beliefs and beliefs about themselves, ultimately influencing their academic behaviors and achievement. For students to develop a growth mindset, the educational contexts and the socializers within must provide the necessary affordances which permit and encourage this identity in students.

Explicitly Teaching and Fostering a Growth Mindset in Students

The above section discussed how learners fixed or growth mindsets naturally form from the sociocultural practices of key socializers they interact with within learning contexts. However, research has also investigated specific ways that practitioners can explicitly promote a growth mindset in their students. Studies have demonstrated that students' mindsets can be changed, and that a growth mindset can effectively be taught to students (e.g., Aronson et al., 2002; Blackwell et al., 2007; Good et al., 2003; Yeager et al., 2013). Mindset interventions, as they are usually referred to in the educational psychology literature, have the potential to not only foster more of a growth mindset in students, but can also improve their academic behaviors and achievement over time (e.g., Paunesku et al., 2015; Yeager, Romero, et al., 2016; Yeager, Walton, et al., 2016).

These interventions—predominantly grounded in the cognitive perspective—accomplish this by targeting students' core beliefs about learning, explicitly teaching that intelligence/ability is not fixed but malleable and can grow when they work hard on challenging tasks. They focus on showing the value of effort; that struggle is not a sign that one is incapable of learning, but rather is an opportunity and necessity for improvement. This key mindset shift can gradually increase students' resilience, altering how they respond to academic challenges and setbacks by increasing their belief in their own capabilities, enabling the enactment of academic behaviors

necessary for success. By demonstrating they can do the work, students are able to gain increased confidence in themselves to grow and improve (Garcia & Cohen, 2012; Yeager & Walton, 2011). This fosters more motivation and engagement in the learning process in students, and "sets in motion positive recursive cycles that increase success over time" (Paunesku et al., 2015, p. 2), ultimately resulting in higher academic achievement.

Thus "wise" growth mindset interventions—based on specific, proven theory- and research-based techniques from the literature—have the potential to alter and reshape students' long-standing fixed mindset beliefs to a growth mindset in a relatively period of time (Walton & Wilson, 2018; Yeager & Walton, 2011). Research over the years in this field (see Walton & Wilson, 2018; Yeager & Walton, 2011 for reviews) has demonstrated that an effective mindset intervention approach involves first exposing students to scientific information (e.g., via readings, videos, lecture slides, etc.) about the malleability of the brain and intelligence, and how it improves and becomes more efficient when we work with challenging material and learn new things. The interventions supplement this with the utilization of creative activities which provide students opportunities to reflect on, internalize, and "own" the growth mindset message (Dweck & Yeager, 2019), often through reflective writing in which they apply it to their own lived experiences, addressed either to themselves or someone else (e.g., their teacher, a struggling friend, a younger learner, etc.) (Zhang et al., 2022).

Another effective approach is through the use of persuasive testimonials of older/past students, or biographies of famous or successful individuals who overcame significant challenges. Such biographies can be very impactful for students, especially if the highlighted individual is someone whom they greatly respect or admire, someone they can relate to, or someone who faced similar circumstances and challenges as them. These life stories provide

clear examples and insight into how these famous people—who perhaps students viewed as being naturally talented or effortlessly successful – in fact faced many significant challenges, struggled, showed resilience, and ultimately overcame them to reach their goals (Polirstok, 2017).

As discussed in the prior section, the learning context—and the beliefs and actions of key socializers within—are a powerful force that plays a key role in shaping the beliefs, values, and behaviors that students come to hold/manifest (Dweck & Yeager, 2019). Within the sociocultural perspective, educators consider the specific learning context as well as the learners' culture(s) relevant, if not paramount, to the educational process. Thus combined with wise interventions, practitioners need to also consider the sociocultural factors within the learning context, to more effectively support students' learning by creating a classroom culture in which they feel safe struggling and making mistakes; that promotes the value of hard work over effortless success, allowing students to attribute success and failure to the process and not their inherent ability; that encourages students to set learning/mastery goals as well as performance goals; and that provides students with constructive feedback and multiple opportunities to learn from mistakes and incrementally improve their ability, all the while increasing their confidence in themselves and the learning process (Lou & Noels, 2019).

In their review of the literature on mindset interventions between 2012 to 2021, Zhang et al. (2022) showed that interventions enhanced students' learning in five primary domains: academic, motivational, self-perceptional, social, and emotional, with academic and motivational domains having the largest impact and gains. Of note, most of the positively effective mindset interventions comprised participants who were struggling or lower-achieving students, especially those from socially marginalized or negatively stereotyped groups (e.g., Broda et al., 2018;

Covarrubias et al., 2019; Goyer et al., 2019; Yeager et al., 2019), demonstrating that interventions can play an important role in supporting struggling students to improve their academic behaviors and performance. Hecht et al. (2021) explain that mindset interventions that aim to change students' underlying beliefs about learning are most effective when students are struggling academically, come to internalize the intervention message to their own life, are in learning contexts that provide opportunities for students to act on the new beliefs, and that provide the necessary affordances to actively support them in adopting the growth mindset beliefs and practices.

However, even "wise" interventions are not "magic bullets" (Yeager & Walton, 2011); they do not work equally for all people. Thus it is important to conduct studies in various cultures and contexts, to better understand the differences between students and sociocultural influences in their learning environments, and enable practitioners to most effectively customize their teaching practices to best support students' needs and academic performance. Furthermore, the epistemological beliefs practitioners hold drive assumptions about what knowledge is and how students learn, which ultimately determines the curriculum design and instructional methods they construct and enact to support that learning. Blending both the cognitive and sociocultural perspective can offer valuable insights and practices to better foster a growth mindset in learners.

The primary purpose of teaching is to best serve and support students' learning; thus educators should strive to consider aspects of both epistemological frameworks, since "as no two students have the same needs and no two teachers arrive at their best performance in the same way, theoretical exclusivity and didactic single-mindedness can be trusted to make even the best educational ideas fail" (Sfard, 1998, p. 11). By drawing on and utilizing a synthesis of the cognitive and sociocultural perspective, educators can become more adept at aligning their

learning outcomes with the most pedagogically-appropriate approach possible, to best foster a growth mindset learning culture and aid their students in their academic learning and success.

Gaps in the Existing Research

The literature outlined above highlights how the learner mindset a student holds can lead to drastically different academic beliefs, behaviors, and performance. It also explained what is known about how mindsets are formed and how they can be shaped and influenced by the dominant discourse and contextual and sociocultural factors within students' learning environments, and discussed practices socializers can utilize to help instill and foster a growth mindset in learners. However, this review has revealed several important areas in mindset research that remain underexplored.

Firstly, studies of learner mindsets have largely taken place in the field of psychology and focused on the cognition of individuals, often minimizing or neglecting the important role that context and sociocultural influences play in their formation and shaping. Furthermore, the primary methodology in mindset research has relied heavily on the use of quantitative measures such as pre/post tests using Likert scale surveys (Yeager & Dweck, 2020). However, these may misrepresent the dynamism of students' mindsets, as they often constrain researchers to studying and viewing constructs deductively and in isolation, limiting the scope and depth of students' responses (Datu et al., 2017; Van Etten et al., 2008). As such, there is a need to balance this body of research with inductive, qualitative methodologies that can adequately capture the complexities of learners lived experiences, and holistically explain how these have influenced their own mindset beliefs about learning. Especially stories of students' lived experiences can help researchers to investigate the complex dynamics that underlie their academic behaviors and strategies, providing new insights (Clark, 2006).

Additionally, as discussed in Chapter 1, learner mindset studies have almost entirely been conducted in and utilized participants from Western, Educated, Rich, Industrialized, Democratic (WEIRD) contexts, the results of which are then generalized to all populations. However, the relationship between students' learner mindsets and academic performance will vary based on differing social and cultural factors and developmental processes within contexts, demonstrating a need to expand research to include more diverse demographics/populations in non-WEIRD settings. This can lead to more equitable research practices, as well as provide new insights into how variations in socialization practices and beliefs among different cultures form and shape learner mindsets, help remove inaccurate generalizations and biases, and offer a more valid portrayal of causes and manifestations of fixed and growth mindsets in today's students (Bernardo et al., 2016; Datu et al., 2017; Haimovitz & Dweck, 2017; Keown & Bourke, 2020; Wanzer et al., 2019).

Lastly, there have been comparatively few studies on the learner mindset and mindset development of undergraduate students, especially at high-level/ranking universities (Dumke, 2018). Students' mindsets can develop and change throughout their academic lives, but currently there is still a limited understanding of the dynamics of undergraduates' mindsets and what sociocultural factors help or hinder the formation of a growth mindset (Limeri et al., 2020). Insight into the complex processes and mechanisms that differentiate students who struggle academically with those who achieve success in this context would be invaluable, along with understanding more deeply how both groups of students perceive and respond to the challenges they face and the strategies they employ (i.e., effective or maladaptive). A more in-depth understanding of these students can help to inform pedagogical practices to better promote the academic success of all students (Dumke, 2018).

CHAPTER 3: Methodology

In this chapter I outline the procedures and rationale for the interpretive embedded single-case study research design that was adopted in this study. First, I explain the characteristics of case study research and why it was used in this study. Next, I discuss my positionality as a practitioner-researcher, and potential ethical concerns. Following this, I describe the research context, participants, and explain the data that was collected and utilized for this dissertation. I then detail a form of reflective thematic analysis, template analysis (TA), and how it was employed to analyze, code, and create themes for the collected data. Lastly, I disclose how study validity was achieved.

Statement of Purpose and Research Questions

The purpose of this qualitative case study is to examine the learner mindset/meaning systems of Japanese students at a high-level national university in Japan. Concurrently, this study also seeks to investigate the specific sociocultural factors and lived experiences that have shaped and continue to influence students' thoughts, beliefs, and actions via their mindsets/meaning systems. It aims to investigate in-depth what is happening in the participants' lives, how they respond to academic challenges and struggles, and why. As such, it provides a unique window into students' lifeworlds and their perspectives on school and learning, and has the potential to hopefully also provide meaningful contributions to other practitioners and the academic research community as a whole. Data is drawn from the Study Strategies and Growth Mindset Course (referred to as "the Course" henceforth), an English for Academic Purposes (EAP) Seminar created and taught by the practitioner-researcher during the 16-week spring semesters of 2021-2023.

Research Questions

This study sought to answer the following research questions:

1.) What aspects of learner mindsets/meaning systems do Japanese university students demonstrate regarding their beliefs and behaviors to academic challenges and setbacks?

- Why? What key influential socializers and lived experiences (e.g., affordances/constraints) do students identify as having shaped their learner mindset/meaning system beliefs and behaviors?

2.) In what ways do Japanese university students describe the Japanese education system as fostering or hindering a growth mindset/meaning system?

- According to students, how can a growth mindset/meaning system be better fostered at school?

Methodology

Research Design

This study employed a qualitative research design. Qualitative approaches seek to more deeply understand the ways individuals and/or groups construct meaning from and attribute meaning to their life experiences. This type of research design tends to focus on naturalistic environments and collect language-rich data (Creswell, 2009; Denzin & Lincoln, 2011). Specifically, an interpretive embedded single-case study was chosen as the methodology for this study. Creswell and Poth (2018) explain case study research as "a qualitative approach in which the investigator explores a real-life, contemporary bounded system (a case) over time, through detailed, in-depth data collection involving multiple sources of information" (p. 96-97). A case study design enables the researcher to understand the "how" and/or "why" of complex social phenomena, while still "retaining a holistic and real-world perspective" (Yin, 2018, p. 4). In the

context of the current study, the phenomena being investigated was the learner mindset meaning systems of Japanese EAP students at a high-ranking Japanese university, what sociocultural influences and lived experiences shaped them, and why.

In embedded case study designs, there is more than one subunit of analysis. In this study, the Course itself was positioned as a single case, with subunits (i.e., embedded cases) comprising purposefully selected participants. Although data from six different classes of the Course were included in this study, the curriculum, contents, and assignments for each were the same. As such, due to this similarity all instances of the Course were grouped together into one case, rather than as multiple separate cases. Consistent with case study design, multiple sources of data (i.e., triangulation) were collected; namely, student reflective writing data and interview data. Additionally, an interpretive (rather than positivist) approach was employed. In this approach, the researcher recognizes that social phenomena must be analyzed within the cultural and societal context in which they occur, and that people's perceptions and interpretations play a crucial role (Angen, 2000). As such, the researcher acknowledges that multiple meanings exist, and thus values the participants' own perspectives and experiences as valid truths (Gergen, 2002; Yin, 2018), rather than searching for a single objective truth. The goal of an interpretive approach is to gain a comprehensive holistic understanding of the phenomenon being studied within its own context (Chetty, 2013).

An interpretive case study design is advantageous for this study because it provides a way to investigate complex social units with multiple variables of importance. It can illuminate the mindsets and behaviors individuals operationalize when they confront specific struggles and tensions, resulting in a rich and holistic account of the phenomenon being studied. Additionally, it can “interpret [participants’] experiences, how they construct their worlds, and what meaning

they attribute to their experiences" (Merriam, 2009, p. 5). Lastly, it can aid in developing context-specific understandings as well as bigger picture generalizations, to help inform and improve practice and lead to better academic and social outcomes (Creswell & Poth, 2018). In sum, an embedded-single case study design aligns well with the goals of this study; as such, I chose to employ this methodology to address my research questions.

Researcher Positionality and Ethical Considerations

Within the sociocultural perspective, a researcher's understanding of their data and findings is not impartial, but influenced by their own cultural, social, and personal beliefs, values, and experiences. This means that all research is "positioned and within a stance" (Creswell & Poth, 2018, p. 228), written from a specific perspective and point of view. This can impact how the data is analyzed, and ultimately influences the conclusions drawn from that data (Dean et al., 2018). As such, qualitative researchers must engage in reflexivity – "a reflexive stance in which biases or prejudices are brought to the fore and analysed in order to understand the researchers' influences on the project that will enable them to make a decision of the appropriateness of their influence" (Jasper, 2005, p. 253). Thus the reflexive researcher not only engages with their data, but also ensures they step back to evaluate it in light of their own experiences, values, and biases, reflecting on how these may color the analysis and findings of the study.

As I shared in Chapter 1, my experiences as a university EAP instructor over the past decade, the questions that emerged pertaining to the challenges and struggles my students face within their academic lives, and my passion to best support my students' learning and development have ultimately led me to this dissertation topic. Each semester I strive to understand the particular circumstances of my students—the sociocultural influences and

phenomena, both inside and outside academia, that have impacted their lived experiences and influence their beliefs and actions regarding studying and learning. This study is the culmination of this, in which I unite my two identities of practitioner and researcher to the single purpose of conducting practical and ethical research that enables me to better understand, support, and serve my students. However, one potential area of bias is my own preexisting views regarding studying and learning. As such, I needed to take care not to project my own beliefs, values, and experiences onto the participants during data analysis, as their lived experiences are unique and different to my own. To counteract this, I engaged in several practices throughout the study, such as reflexivity, critical self-reflection, and triangulation of data, to both reduce bias and to increase the validity of the study (see Validity section below).

I also must acknowledge a potential issue in the fact that the participants in this study were students of mine who took the 16-week Course. However, rather than weakening my study, I believe this component enhanced it. The phenomena being studied—the struggles and challenges students face in their academic lives—often touched on personal and at times sensitive matters. In order for students to open up and share completely about their lived experiences requires having a close and trusting relationship with the inquirer. Compared to an outside researcher investigating this, as their teacher I was able to develop meaningful relationships with my students based on mutual openness, trust, support, and understanding. I always shared personal stories from my own life as examples for each module, to demonstrate to students I would never ask anything of them that I also was not willing to divulge. As such, over the 16-week semester I was able to create a warm, friendly, and supportive classroom context where overall students felt comfortable sharing details of their lives with me and each other. Therefore, I feel the combination of my long-term experience as an EAP instructor in Japan, my

extensive knowledge of this field of research, and my relationship as the participants' teacher gave me a significant advantage in gaining a deeper glimpse into multiple facets of the lived experiences of the participants, which aided me in more adequately addressing the research questions of this study.

Research Context and Participants

This study took place at a high-ranking national university in Japan. As mentioned above, data was collected from a 16-week EAP seminar course focusing on study strategies and growth mindset that the practitioner-researcher taught within an International Cultural Studies faculty during the spring semesters (April to August) of 2021-2023. Two classes were taught each semester, with class sizes averaging around fifteen to twenty Japanese sophomores, juniors, and seniors (20-21 years old) who were studying English in addition to their chosen faculty major. The course met once a week for 90 minutes, online synchronously via Zoom during the 2021 semester due to Covid-19 restrictions, and face-to-face during the 2022 and 2023 semesters.

Participants

Participants for this study were drawn from past students who took the Course. Within qualitative research, samples are often purposeful, based on certain predetermined criteria (Patton, 2015). Such samples are selected "by virtue of their capacity to provide richly-textured information, relevant to the phenomenon under investigation" (Vasileiou et al., 2018, p. 2), in order to highlight different perspectives pertaining to it (Creswell & Poth, 2018). Purposeful sampling enables a maximizing of data variation, which allows the researcher to both gain a better understanding of the diversity within the population and deeper insights into the phenomena being studied (Merriam & Tisdell, 2015; Patton, 2015). In qualitative research, rather than the number of instances of a certain response determining its utility and meaningfulness, it

seeks to value and put equal weight on what the participants say. Thus, for this study rich examples of participants were purposefully selected not based on their frequency of occurrence, but rather based on whether they provided useful insights into both the positive and negative aspects of the phenomena being studied. It sought to include both *typical samples*, comprising "the average person, situation, or instance of the phenomenon of interest," as well as *unique samples*, based on "unique, atypical, or rare attributes or occurrences of the phenomenon of interest" (Merriam & Tisdell, 2015, p. 97). As such, the goal was not to report out the frequency of occurrences. From the total numbers of students who took the Course between 2021-2023, overall a collection of responses from 70 were purposefully chosen — 50 females and 20 males (each self-identified their gender). Pseudonyms were used to protect the identities of these participants.

Data Collection

This section provides a description of each data collection method and the justification for its use. It is important to note that all the content, activities, and assignments used—which comprised the data for this study—were a regular part of the Course taught by the practitioner-researcher. As such, this study was reviewed and given 'Exempt' status by the University of Indiana Institutional Review Board (Protocol # 2002564806). This study utilized two forms of qualitative data, reflective writings and end-of-semester course reflection interviews.

Reflective Writing

The primary data for this study comprised student reflective writings for each learning module across the 16-week semester (Figure 3). These were completed and collected using Google Documents within a private Google Classroom created for each Course. Such reflections were made up of open-ended questions inquiring about students' opinions, experiences, and

beliefs pertaining to the learning module topics, and were constructed from a review of the literature (see Appendix A). Each of the learning modules had anywhere from 5-12 total reflection questions (pre and post-reflections), with student responses usually averaging 1-2 paragraphs per question, on average around 1000 words total. These reflective writings provided qualitative details depicting the unique perspective of each student's lifeworld(s).

STUDY STRATEGIES & GROWTH MINDSET COURSE MODULES	
Week 1	Class Introduction & Icebreaking Activities
Week 2	Academic Identity
Week 3	Academic Sense of Belonging
Week 4	Time Management & Study Strategies
Week 5	Procrastination & Study Strategies
Week 6	How We Learn & Learner Mindsets
Week 7	Fixed & Growth Mindsets
Week 8	Goals & Goal-Setting (Part 1)
Week 9	Goals & Goal-setting (Part 2); Challenge & Grit (Part 1)
Week 10	Challenge & Grit (Part 2)
Week 11	Failure (Part 1)
Week 12	Failure (Part 2); Stress (Part 1)
Week 13	Stress (Part 2)
Week 14	Negative Thinking
Week 15	Success
Week 16	Final Reflection Interview

Figure 3. Study Strategies & Growth Mindset Course Modules

There were practical reasons for using this data source in this study. Firstly, a key goal of the Course was for students to constantly be reflecting on the strategies, theories, and mindsets they are learning and how it is related to them on a personal level, to assist them in applying it to their own lives to support their academic behaviors and performance. Additionally, this was an EAP course, with all students being English language learners. While their ability level was roughly mid-high intermediate, it was beneficial to provide students sufficient time to think before requiring responses. Written reflections allowed students to reflect on their past, present, and future situations, process the content, and respond to the questions at their own pace, allowing for richer and more detailed responses. Furthermore, according to Yin (2018), the first of two common facets of case study research is observation of the phenomena being studied.

While direct observation was not possible due to the nature of the study, students' reflection writings allowed for indirect observation of their study and learning beliefs and behaviors.

End-of-Semester Course Semi-Structured Reflection Interview

According to Yin (2018), the second common facet of case study research comprises interviews of the participants being used to study the phenomena. In the final week of the semester, all students individually engaged in a 10-15-minute end-of-semester Course reflection interview on Zoom with the practitioner-researcher, where they discussed their beliefs and opinions of the module topics, meaningful academic lived experiences, and their overall thoughts about the Course as a whole and what they learned.

The students were provided with the questions they would be asked a week prior to the reflection interview, to give them sufficient time to understand what was being asked of them, to review the course content, and to give them time to start thinking about their responses (Appendix B). As this was an EAP course and interviews can be deemed stressful by students, this approach was meant to decrease anxiety during our discussion, as students already had time to look over and think about/prepare their initial thoughts. This was key to enabling them to be able to speak openly and freely about their own views and experiences. Interviews were semi-structured, as an established outline of open-ended questions was used for every interview, but the researcher was free to ask spontaneous follow-up questions based on participant responses (Fontana & Frey, 2000; Limeri et al., 2020). These interviews were recorded using Zoom, and the videos for the purposefully selected students of this study were uploaded to Otter.ai to create transcripts for analysis.

Data Analysis

Data was analyzed using a form of thematic analysis, Template Analysis (TA). I chose to use TA because it prioritizes a subjective, interpretative, and organic approach to coding which permits the use and modification of a-priori themes to "capture important theoretical concepts or perspectives that have informed the design and aims of a study" (Brooks et al., 2015, p. 218), thus allowing for a high level of flexibility. My data analysis began from several a-priori categories, derived from the pre-existing module topics of the Course. It also utilized the theoretical framework of learner mindsets, particularly the factors comprising the learner mindset meaning systems, which was informed by existing literature and research (see Chapter 2, Table 1). However, as Vaughan (1992) aptly expressed, "the paradox of theory is that at the same time it tells us where to look, it can keep us from seeing" (p. 195). Therefore, I needed to also be receptive and open to new insights gleaned from the data to fully understand the phenomena being investigated. As such, TA was a good fit as it allowed me to use a combination of both deductive and inductive analysis to aid in the development of codes, categories, and themes (Braun & Clarke, 2013, 2019a, 2020).

The first step of TA is collating all the necessary data and gaining familiarity with it through in-depth readings (Brooks & King, 2014; Brooks et al., 2015; McCluskey et al., 2014). Starting with just one class of the Course, I read through all the reflective writings of the first learning module for each student once to gain a general overarching understanding of their contents. I then reread them, this time copying and pasting the responses of purposefully selected students into a "master document" in Microsoft Word, saved using the module theme name (e.g., Sense of Belonging, Stress, etc.). The responses captured in this way were a combination of both typical and unique samples which provided insights into answering the research questions. Each response was labeled using the participant's pseudonym. I then printed out the master document

and read through it, highlighting key ideas that stood out to me and writing notes and reflections about them in the margins as both an initial means of brainstorming ideas for coding, and for practicing reflexivity.

Once this was completed, I uploaded the master document into the computer-assisted qualitative data analysis software (CAQDAS) MAXQDA, which I used for data analysis, coding, and theme development. I created a separate folder for each module topic of the Course. The next step was a preliminary coding of the data (Brooks & King, 2014; Brooks et al., 2015; McCluskey et al., 2014). However, a key feature of template analysis is that this begins with a small subset only. Identified codes and themes derived from the data subset are then organized into meaningful hierarchical relationships via subcodes and subthemes. From this an initial coding template is developed, to be applied iteratively to the subsequent subsets of data and refined as needed. Therefore, for this first phase I started with just that first master document of the first module theme of the Course from the one class to begin coding in MAXQDA. For the first cycle of coding I used an inductive process of open coding while I analyzed the data, with a strong focus on what Saldaña (2013) termed *values coding*, which reflects "a participant's values, attitudes, and beliefs, representing his or her perspectives or worldview" (p. 110). As such, I strove to use in vivo coding as much as possible, taking words and phrases directly from the data that captured key elements in the students' own words to create codes. In this phase I also endeavored to bracket my existing knowledge and preconceived opinions about this topic (informed by my theoretical framework and the existing literature) in order to derive meaning solely from what the participants wrote.

The next step was to analyze and organize these open codes to create initial themes and a coding template (Brooks & King, 2014; Brooks et al., 2015; McCluskey et al., 2014). For this

second cycle of coding, I used MAXQDA's coding system to organize, group, and merge the open codes via axial coding, in order to identify potential intersections within the data and reveal commonalities and patterns to construct meaningful hierarchical relationships (Saldaña, 2013). At this stage I allowed myself to consider and draw from my theoretical framework of learner mindset meaning systems and the existing literature, as well as my research questions to aid in theme construction. However, I also endeavored to stay open and flexible, to allow for the possibility of forming new categories and themes organically from the data and codes. This multidimensional approach allowed me to both investigate themes from the existing literature and utilize ideas introduced by the participants (Hseih & Shannon, 2005). The result of this was the formulation of a preliminary coding template and several tentative themes/subthemes.

The above process was then repeated for each subsequent module theme of the Course for that same class, one at a time. Preliminary coding was still conducted inductively each time using open in vivo and values coding. Upon completion of the reflective writing data, I moved on to my other data sources. I first watched the reflection interview videos of each student in the class. From this, the videos of purposefully selected participants were uploaded to Otter.ai to produce transcripts. Once this was complete I reviewed the presentation and interview videos while referring to the Otter.ai-produced transcripts in order to check the accuracy of the transcription and correct any errors that were made. During this, just as with the reflective writing data, I copied and pasted relevant/meaningful responses into a "master document" in Microsoft Word, saved as the data source type (Reflection Interview). Again, the responses captured in this way were a combination of both typical and unique samples which provided insights into answering the research questions. I printed out each master document and reviewed through it, highlighting key ideas and writing practitioner notes and reflections in the margins.

These master documents were added to MAXQDA, under a separate folder for each data type. I then went through and open coded them, and added them to the existing coding template for the module topics.

This entire iterative process was then repeated with the data from next class (i.e., embedded case). The open codes created from this class were applied to the tentative coding template created from the first classes' data, to make meaning of them. Whenever a pre-developed category or theme from the coding template did not "fit" well with elements of the new data subset they were modified and refined. Thus I deleted, split, merged, or created new codes/subcodes and themes/subthemes until all the data of each subset had been integrated into the coding template. This process was repeated for the remaining five classes, until the coding template had been applied to the full dataset of all X classes/embedded cases, and I was satisfied that it had resulted in a rich and comprehensive representation of the data. The final step of template analysis comprised the defining and naming of the themes and the presenting of the analytic results.

Validity

For qualitative research, Creswell & Poth (2018) describe nine validation strategies within three different categories – the researcher's lens, the participant's lens, and the reader's or reviewer's lens— of which a researcher should engage in at least two of in any given study. For this study I sought to corroborate my evidence through the triangulation of several different types of data sources (reflective writing, project presentations, reflection interviews) and to address researcher bias by engaging in reflexivity and bracketing via researcher memos written while teaching the Course and during data analysis and coding (researcher's lens). Being the practitioner-researcher, I was immersed in the Course with the participants over a four-month

period, where I had multiple chances to interact with the participants and inquire and comment on their reflective writings and class discussions. Thus I had prolonged engagement and persistent observation in the field throughout the study (participant's lens). Lastly, I sought to represent what was being observed in the specific context of the Course by generating rich, thick descriptions of the data to inform my interpretations (reader's lens).

CHAPTER 4: Results (Research Question #1)

This chapter will discuss the results of the first of two research questions, which comprised two parts:

> *RQ 1.1: What aspects of learner mindsets/meaning systems do Japanese university students demonstrate regarding their beliefs and behaviors to academic challenges and setbacks?*
>
> *RQ 1.2: Why? What key influential socializers and lived experiences (e.g., affordances/constraints) do students identify as having shaped their learner mindset/meaning system beliefs?*

Overview of Findings

Qualitatively analyzing students' reflection writings across the semester and final reflection interviews revealed that the data predominantly clustered around three key areas of the learner mindset meaning system introduced in Chapter 2. These were related to students' overall beliefs and responses regarding: 1) intelligence and effort, 2) mistakes, and 3) setbacks/failures. Thus, this section was organized around those three areas as overarching categories. Within each of the categories, the data was further divided into a section for growth mindset beliefs/behaviors and for fixed mindset beliefs/behaviors. Finally, within each growth and fixed mindset section, data analysis produced various themes, which are discussed as support. As part of research question #1, students also recounted salient lived experiences and certain key influential socializers that had influenced why and how they came to hold those mindset beliefs. These will be discussed in detail within the sections below. Please note that a few sections of the data analysis were shorter than others. This was because there was not much evidence of that theme in the data.

As discussed in Chapter 3, data was analyzed using a form of thematic analysis, Template Analysis (TA), which prioritizes a subjective, interpretative, and organic approach to coding while also permitting the use and modification of a-priori themes. The data connected to the

above-mentioned three a-priori categories derived from the theoretical framework of learner mindsets/meaning system, informed by the existing literature and research (see Chapter 2, Table 1). However, for this study I wanted to be receptive and open to new insights gleaned from the data, to fully understand the phenomena being investigated within this particular context. Thus, TA enabled me to use a combination of both deductive and inductive analysis (i.e., open and closed coding) to aid in the development of codes, categories, and themes.

A Note to the Reader

Before beginning there are several points worth noting pertaining to the data analysis and results. Firstly, participant quotes were included as support for the themes found within research questions #1-2. Note that because the participants were English language learners, with English not being there first language, many of the reflection and interview responses were written in truncated form. Also, the general structure of the semester reflective writing assignments each week (in class and as homework) comprised anywhere from five to ten reflection questions, with students providing a minimum of four to five sentences each. Thus in the data analysis, in order to offer variation and sufficient evidence from across the data set I strove when possible to include two quotes from different participants for each point when highlighting the findings.

Secondly, as discussed in Chapter 3, rather than the frequency of instances of a certain response determining its utility and importance, qualitative research seeks to value and put equal weight on what each participant says. Therefore, participant responses were purposely selected not just on their frequency of occurrence, but also on whether they were a rich example that provided useful insights. This resulted in the inclusion of both typical and unique samples. Because response frequencies were not quantified, several counting words were instead used to convey whether responses were typical or unique and thus get a sense for how predominant they

were across the data. In this analysis, '*a number'* and '*some*' referred to typical responses, with the former occurring much more frequently than the latter. Likewise, '*several'* and '*a few'* were used to refer to more unique responses, with the former occurring occasionally, and the latter being a rare occurrence.

Lastly, throughout their reflection and interview responses many students tended to predominantly reflect a fixed mindset (FM) or growth mindset (GM). In such cases, I used the terms '*FM-oriented'* or '*GM-oriented'* to reflect this tendency. However, it is important to note that this is by no means a categorization of these participants, nor meant to show a deficit orientation towards FM students by assuming they are only one thing. As discussed in Chapter 2 (see Figure 1), the mindset anyone holds at a given time is on a continuum, and they can change depending on a number of factors. By using the terms FM-oriented and GM-oriented, I simply wished to convey that the participants showed a stronger tendency towards a fixed or growth mindset *in that particular context*.

Learner Mindset Meaning System, Category #1: Students' Intelligence & Effort Beliefs/Practices

Growth Mindset-Oriented

Theme #1: "The willingness to study and the ability to continue are more important than smarts"

The first overarching key difference in the learner mindset participants held regarded their belief in the origins and malleability of intelligence/ability, and the value of effort for success. Across the dataset of six classes, many students expressed a growth mindset theory of intelligence—the belief that their intelligence and abilities were not innate or fixed but could be grown and improved through the application and practice of hard work. As Naomi shared:

> *"Intelligence can be explained by how much knowledge and insight one has. It is natural that the more we learn, the more knowledge we will acquire. With that knowledge, we can*

gain more insight and think deeper. This is true for everyone. I believe it is possible to always improve our level of intelligence. (Naomi)

This belief that intelligence and ability can always be improved is a core foundational growth mindset belief, as it influences students' beliefs, actions, and performance in other key areas, such as how much effort students are willing to put into their studies, how they interpret mistakes, and how they respond to challenges and setbacks. Across the dataset, a number of students expressed the importance of believing that their intelligence is not predetermined for sustained academic motivation and effort. For example, Keiko and Yoshie stated:

"I think we can change our intelligence. I know some parts of intelligence are innate, but not all. In fact, I've learned so much that I'm able to see things from more diverse perspectives than in the past. The more we believe we can change our intelligence, the more motivated we will be to learn. (Keiko)

"My value regarding studying and learning is that I should make an effort. I think if I can't do something, I should try and do my best. Of course, it is important to get the result. But I think doing my best and getting something in the process is more important. (Yoshie)

Such students emphasized the significance of perceiving intelligence as malleable, highlighting the power of effort in shaping their academic motivation and values. Thus, while fixed mindset-oriented students predominantly believe that one's "natural" intelligence or talent is the main cause of attaining academic success and that exertion of effort reflects a lack of natural talent, growth mindset-oriented students expressed the opposite – that hard work is critical to improvement, and the only means to mastery. As Akira and Misao explained:

"If you are smarter than the other students, it may be one of the reasons to succeed academically in school, but I don't think it's the major cause of academic success. The major cause of academic success is to keep studying. I know that the student who is really intelligent is easier to succeed, but the biggest reason for the success is making effort everyday and doing hard work for a long time. Thus, I think student intelligence is a really small part to succeed academically in school. (Akira)
"I think that student intelligence does play a factor in academic success but it isn't the major cause of academic success. For me, I think that effort is the major cause of academic success. No matter how smart someone is, I don't think they could get high grades if they

don't study at all. I think that the only difference intelligence contributes to academic success between two students is how much effort they need to put in. It helps place someone further in front at the starting line, but the question of who wins the race depends on a person's effort. (Misao)

Growth mindset-oriented students believed that while being "naturally" intelligent was certainly beneficial, more importantly was the ability to continue to develop oneself through the application of effort that was the key factor to academic success. By viewing effort as both necessary and positive, rather than indicative of an inherent lack of talent, these students tended to not shy away from challenging tasks. In explaining how they came to hold these growth mindset beliefs, the students shared positive academic experiences where they had demonstrated low ability and were not considered smart, but through their effort and hard work could achieve improvement and success. For example, Shizuka and Yuzuki noted:

"New things make us intelligent. In fact, I was not so clever when I was in elementary school, but I went to cram school and learned many new things. Then I could enter the junior high school where almost only intelligent students belonged. (Shizuka)

"I think that effort is a key element in intelligence. When I was a high school student, my academic ability was not good enough to enter [X] University, but by studying hard, I was finally able to pass. This means that through effort, I have achieved a higher level of intelligence than before. (Yuzuki)

Additionally, some students shared experiences of viewing a friend or peer who was able to improve their initially low ability through hard work, and how this came to influence those students' own beliefs and academic behaviors. As Mami recounted:

"I believe that it is how hard we study that is related to our academic success. A friend who was in the same high school was not good at studying when she entered. She said she could not get a high score on the entrance exam and could barely pass. She studied in the study room at school almost every day after school. Her grades got better and better. Finally, she passed the entrance exam of her first choice. From this, I [came to] think that student intelligence is not related so much to academic success as effort is. (Mami)

Shizuka, Yuzuki, and Mami's narratives exemplify how students' growth mindset effort beliefs came to foster positive academic behaviors – namely increased resilience and

determination in the face of challenges and setbacks. Such efforts sustained over time led to an improvement of their academic abilities, increased confidence, and ultimately academic success.

Theme #2: "Some people are geniuses since they are born, but others become smart by making efforts"

A second theme centered around the distinction between genius-types and hard-working types, and students' beliefs that they could still achieve success with hard work even if they lacked "natural" intelligence/ability. Several students shared the belief that while effortless success was ideal, it was not realistic, especially when learning new and unfamiliar things. Rather, effortlessness can come only come after one has put in the necessary time and hard work to reach a certain level of mastery. As Hikari explained:

> *"It is natural to work hard to learn new things or get new skills. Actually, it is ideal that we can do everything with very little energy from the start. However, it is not actual. We always have to make effort to learn new things and get used to them. And by repeating working hard, we get used to them, then become able to do work easily at it. So, I think how we work easily at something only means how we get used to it. (Hikari)*

Hikari's perspective highlighted some students' views that ease of performance comes only after investing time and hard work to attain mastery. In other participant responses, they made a distinction between "genius" and "hard-working" types of people, associating effortless success with innate talent. However, these growth mindset-oriented students still believed they could achieve success by working hard, even if they were not such a "genius" type. For example, Chiaki and Chiyoko noted:

> *"I'm more of a hardworking type rather than a genius type. I'm so clumsy that I rarely do anything for the first time as well as other people do, much less feel "gifted". However, in study, I can finally understand by practicing problems many times, and in sports, I can usually practice twice as much as other people and finally catch up with the level of others. I generally don't find hardship in effort. (Chiaki)*
> *"In my opinion, some people are geniuses since they are born, but others become smart by making efforts. There are many students who became smart by their own efforts in [X] University, and I think I am also one of them. When I was in elementary school, my grades*

were not so good. However, after I entered junior high school, I studied very hard and my grades became higher and higher. Now I feel that I can do anything only if I don't stop making efforts. (Chiyoko)

While Hikari, Chiaki, and Chiyoko expressed their beliefs in the existence of academic geniuses and that they were not naturally smart, they did not allow this to discourage them limit what they could achieve. Rather, these students came to hold the belief that success could be achieved by anyone through persistent academic efforts and dedication. Furthermore, students such as Yuzuki and Asami went on to explain that rather than having innate intelligence, or even in spite of it, this unwavering motivation to study hard was the true deciding factor for academic achievement:

"Academic success depends on students' motivation and effort. Even with high intelligence, some students who don't have motivation to learn fail academically if they don't work on classes and assignments. On the other hand, even ordinary students with clear goals and enthusiasm can achieve academic success because they work hard. In fact, I didn't do well on the entrance exam, but I got a high GPA last year by taking classes and doing assignments seriously. Therefore, I think that students' motivation and effort are the major cause of academic success. (Yuzuki)

"I don't think student intelligence is the major cause of academic success. For example, grades in Japanese schools are influenced not only by test scores, but also by students' motivation and positive attitude. So academic achievement is measured by the student's effort. The willingness to study and the ability to continue are more important than smarts. (Asami)

In fact, the capacity to work hard in and of itself and to not give up was posited by students as a valuable and necessary skill for academic success. For example, Shion and Hana expressed:

"It is important to work hard on everything. I don't think how smart you are is related to doing your best in everything. Certainly, when I see others doing things easier than I do, I sometimes feel depressed that I am inferior. But I think that being able to make an effort is one ability and a talent. Working hard is not something that everyone can do. The concentration and perseverance required for effort are also factors for smartness. (Shion)

"It is important to keep studying/learning without giving up. It may take a long time until efforts pay off, and generally many people prefer hanging out with friends or playing video

games to studying. However, in my opinion, a smart person is someone who can keep making an effort. (Hana)

These students' responses personified a growth mindset theory of intelligence, emphasizing that academic success was not solely reliant on innate intelligence but instead is significantly influenced by unwavering motivation, dedicated effort, and perseverance. Despite facing academic challenges and even witnessing others seemingly excel effortlessly, they did not give in to feelings of discouragement or inferiority, knowing that even if someone was naturally smart, if they did not work hard they would not succeed. Thus, their continuous effort was key to them achieving success in their academic pursuits.

Fixed Mindset-Oriented

Theme #1: "IQ is determined from birth and cannot be changed by effort"

At the other end of the learner mindset meaning system spectrum were some students who predominantly expressed a fixed mindset theory of intelligence, believing that intelligence/ability were innate—things people were born with—and therefore could not be greatly changed through one's own efforts. For such students, like Koji and Mariko, words such as "natural" intelligence/talent and "genius" were commonly menti, with them believing these were the major cause of academic success:

"I think that we have a limit to our intelligence, and it is different from person to person. I think the limit of intelligence is determined by talent. (Koji)

"I have heard that IQ is determined from birth and cannot be changed by effort. I think that learning new things increases the amount of knowledge but does not change the level of intelligence. (Mariko)

Particularly, fixed mindset-oriented students held the belief that our genetics and DNA determine our intelligence and talent at birth and that it is hard, if not impossible, to change this much. For example, Tsubaki and Asuka stated:

"I think we can't really change our level of intelligence. Because the person who is intelligent or not is influenced by his/her genes or DNA. Somebody is very talented since he was born. Everyone has a different level of intelligence, and it's hard to change. (Tsubaki)

"I believe that intelligence is strongly influenced by genetics. We can improve intelligence through hard work, but I believe that the influence of birth is more significant. When I was in junior high school, the one thing that most smart people had in common was that their parents were also smart. As children of doctors tend to be doctors, I envied them for inheriting their parents' smart genes, and a part of me gave up on the idea that I was not born with such natural talent. The influence of heredity is undeniable. (Asuka)

These students, who expressed a predominantly fixed mindset of intelligence, held the belief that intelligence and abilities were innate traits determined by genetics and birth, leading them to view efforts as having limited impact on their academic success. Koji, Mariko, Tsubaki, and Asuka emphasized the role of "natural" intelligence and "genius" as major factors for academic achievement, suggesting that significant change was difficult, if not impossible. In sum, this resulted in such students discounting the transformative power of personal effort in their own academic pursuits, and often led to negative comparisons with their perceived more naturally intelligent peers.

Key Influential Socializers and Lived Experiences

Throughout the data students discussed salient lived experiences and key influential socializers (KIS) which had impacted their beliefs regarding intelligence and the value of effort. Several categories of people were discussed: friends/peers, family, teachers, athletes, and popular media.

Category #1: Friends/Peers

Growth Mindset Theme: As positive role models

Among the most cited KIS by the participants concerning intelligence/effort beliefs was that of their friends or peers. Across the dataset, GM-oriented students predominantly wrote about

friends they had who demonstrated an ethic of unerring work hard towards achieving their goals. They viewed these peers as already being smart, and so were amazed that despite this they continued to make great efforts to ensure their success. As such, these friends came to be inspirations and positive role models for these students. Yua and Rio recounted:

> *"At school, there were lots of friends who were good at making efforts studying. They were already smart, but they did not stop studying. They thought about their lives and set their own difficult goals. So that they could achieve their goals, they continued to challenge the high obstruction. When I experience a challenge, I often think of my friends from high school to help motivate me. I have seen their tremendous efforts and I always think that I would like to be like them. Thinking of them, I can face the difficulties and challenge them with perseverance. (Yua)*

> *"I have a role model who is one of my friends from high school. She is so smart that she is in the department of international politics, school of political science and economics, and is a Waseda University [a top Japanese university] student now. However, she worked so hard for tests in high school and university entrance exams. She proved that hard work paid off. Every time I saw her attitude about studying, I was influenced by her. Because of it, now I think people who are intelligent try their best every time and they are so hard workers. (Rio)*

Rather than negatively comparing themselves to these high-achieving friends and becoming disheartened, these students were instead inspired, interpreting their friend's academic abilities and successes as hope that they too could similarly achieve success if they worked as hard. For example, Hana and Momoko explained:

> *"Friends I made after entering university influenced my academic identity. Almost all of them have high aspirations, so they make me feel that I must make more effort. Also, when I work on something with them I can recognize that these are things I can also do, not far behind them. (Hana)*

> *"The existence of other great students influences my academic identity. They inspire me to do things harder. For example, when I see someone tell his idea confidently, I try to read more books so that I can show my ideas confidently in front of other people. Also, when I hear someone speak English fluently, I want to practice my English-speaking skills more. (Momoko)*

Interactions with friends or peers who excelled encouraged these students to strive for greater effort and continuous self-improvement. In addition to their regular schooling, most students in

Japan also attend a cram school in order to prepare for high school or university entrance exams. In their responses, some participants stated how it was their cram school peers who had the biggest impact on their growth mindset effort beliefs. For example, Mariko and Kenji shared:

> *"Having attended a cram school, I was surrounded by friends who were all highly motivated to study. This helped me learn the importance of studying hard. (Mariko)*

> *"When I was a high school student, I attended a cram school. There, many people study hard. I usually don't study but changed my mind and started to study hard. Attending a cram school had a positive effect on my academic identity. (Kenji)*

Comments such as those included above illustrate the pivotal role that hard-working, high-achieving friends/peers had on these students. They became positive role models for them to emulate, promoting growth mindset effort beliefs by encouraging them to similarly work hard and persevere to achieve their own goals.

Fixed Mindset Theme: Negative social comparisons

Conversely, in their responses FM-oriented students predominantly wrote about their negative social comparisons with their high-achieving peers. Unlike the GM-oriented students, they did not focus on these students' efforts or hard work to achieve such success, but rather their perception that their peers were inherently talented and better than them. These negative comparisons tended to erode their belief in themselves and their potential, making them feel they were not "naturally" intelligent or capable enough. For example, Takuya and Kaede explained:

> *"I tend to think that I'm just not smart enough. I sometimes feel like other students are so talented. I have my strengths, of course, but when I feel inferior, I often don't notice such strengths, and it depresses me. (Takuya)*

> *"I often feel negative thoughts when I compare myself to others. For example, when my friends present better than me, I compare myself to them and I think I can't do anything well like them. (Kaede)*

Rather than viewing these peers as a positive role model to learn from and aspire to like the GM-oriented students, these students instead became disheartened, losing confidence in

themselves. Furthermore, several students expressed a kind of learned helplessness from these comparisons, feeling that because their current study methods and efforts were not achieving the results they desired, that it was hopeless for them to ever "catch up" with their smarter peers. For example, Hinata and Fumi shared:

> *"I think my fixed mindset was influenced by setbacks in high school. It was caused by the thought that no matter how much I studied, I would never be able to beat the people who were smarter than me to begin with. (Hinata)*

> *"Students are compared to each other by teachers and students compare with each other, too. I always compared my score with my friends' score. There are some friends that I think I will never catch up with. Other friends have similar scores to mine but sometimes the margin between us becomes big and I have negative thoughts. (Fumi)*

For these students, constant comparisons triggered feelings of being unable to surpass smarter peers, negatively influencing their academic self-perception. Some students, like Kenji, also made mention of peers being naturally better than them due to their (seemingly) effortless success:

> *"Sometimes I feel a fixed mindset when I see my friends succeeding without trying. For example, there are times when a school test is difficult. At such times, I may not succeed despite my efforts. However, some of my classmates are achieving good results without studying. At such times, I feel that I don't have talent. (Kenji)*

The perception that their peers achieved success without effort was damaging to these students' morale and academic motivation, as it made them feel there was an ability gap that they could not bridge even if they made efforts. This caused them to lose confidence in themselves and to question what difference their efforts could make. A few students were aware of the harm negative social comparisons with peers could have, but expressed that they still could not help stop themselves from doing so. As Chiyoko expressed:

> *"I usually measure whether I am successful by comparing myself with other people. I think it is not a good way because I can lose confidence excessively. If I can assess my success better than others, of course I feel good, but if I can't, I lose my confidence completely…. (Chiyoko)*

Social comparisons with their peers was a double-edged sword for these students – it could make them feel successful and confident when their grades surpassed that of their peers, but conversely could be damaging to their morale and motivation if their peers did better than them.

Category #2: Family

Growth Mindset Theme: Promoting the importance of working hard and not giving up

In addition to peers, the other most commonly mentioned KIS influencing students' intelligence/effort beliefs were members of their family. Students explained how from a young age they spent much time with their family, and as such came to be influenced by them. Across the data comments regarding family were entirely positive, with them being considered role models promoting the value of sustained hard work and not giving up. For example, Chiaki and Akemi shared:

> *"I feel my mother influenced me the most. She never gives up anything she started. I had seen my mother like that since I was a little girl, and I was not willing to give things up so easily. Even when I tried to give up, my mother often stopped me from giving up. I think this is what gave me perseverance. What I learned from my mother has led me to where I'm today. (Chiaki)*

> *"I was influenced by my older brother. My brother is five years older than me and I have grown up watching him. He is a hard worker and a smart boy and I totally believed that it is a standard attitude about learning when I entered elementary school, so I studied as hard as my brother. Now, I know the attitude is a rare case but I unconsciously acquired it thanks to my brother. (Akemi)*

Watching a parent or sibling from a young age model the importance of working hard and not giving up instilled in these students a similar belief and work ethic. In addition to being a role model, positive parental encouragement to not give up in the face of setbacks was also mentioned by students as important. As Tsuru and Naomi noted:

> *"My father encourages me to try anything. He lets me do anything I want or try. However, he has only one condition. That is not giving up and doing my best as long as possible. He does*

not require me to succeed at everything, he just wants me to make sustained effort. It influences me so much. (Tsuru)

"I can work hard while enjoying the process. I owe it to my family who taught me to never give up and keep trying no matter what. I learned it when I took piano lessons in my childhood. Whenever I would learn a new piece or prepare for a recital, I would face obstacles, but my family always encouraged me to keep trying. The little success of each piano recitals has built up to this day to shape my grit. (Naomi)

The profound impact of family members as key influential socializers on students' intelligence and effort beliefs is evident in their accounts. These role models not only served as examples of hard work and persistence but also actively encouraged them to work hard to persevere in their goals. Thus, the positive influence of family support shaped these students' attitudes towards holding a growth mindset orientation to effort.

Category #3: Teachers, Athletes, and Popular Media

While less prevalent than their friends/peers and family, several other notable KIS were discussed by the participants. Firstly, several students mentioned in their reflections a memorable teacher that had instilled in them a growth mindset belief to work hard and not give up in achieving their goals. For example, Asami and Mami shared:

"I took piano lessons for about 10 years. I had to play a difficult assignment in a competition and had a very hard time. At that time, my piano teacher told me that if I played it every day, I would be able to do it. I was about to give up, but with her support I kept practicing until the end and was able to play that piece. This experience taught me the importance of continuing to practice and hard work. (Asami)

"My cram school's teacher influenced me in becoming gritty. He often encouraged us by the word saying "Nanikuso, makerumonoka!"("Damn it, I'm not going to lose!"). He also told us "If you wondered what to do, you should choose a more difficult one." However hard things I face, if I just remember his words, and I can keep making an effort. (Mami)

Examples such as these illustrated how educators who hold growth mindset beliefs about effort inspired the students also to persevere through challenges and cultivate a growth mindset approach of their own to achieve their goals. Aside from educators, a small number of students

drew inspiration from admired athletes. For instance, Katsumi reflected on the famous baseball player Ichiro's philosophy of genius, highlighting the significance of effort, while Hideko found motivation in figure skater Asada Mao's perseverance during the Sochi Olympics:

> *"When I experience a challenge, I have a role model. It is Ichiro. He is one of the greatest baseball players. He said, "If you call a person who can do something without effort a genius, then I don't think I am a genius. If you call a person who can do something as a result of hard work a genius, then I think I am a genius". This makes me think we can become or do anything by continuing our efforts. So, whenever I face a challenge, I remember what he said. (Katsumi)*

> *"Asada Mao is a role model for me. She was a professional skater and left a lot of remarkable records. In the Sochi Olympics, although she was expected to get a medal around the world, she made terrible mistakes in the first game. Most people felt that it was impossible to catch up with other skaters. However, she never gave up and did her best in the second game. She couldn't get a medal but she moved up from sixteenth to sixth place. I was so impressed by her efforts and her strong will helps my motivation. (Hideko)*

For such students, athlete role models impacted their beliefs in the value and importance of hard work and determination in achieving success. Lastly, a cluster of students drew inspiration from fictional characters in well-known Japanese manga, anime, or TV dramas as their KIS for shaping their beliefs about effort. For example, Satoshi found guidance from Naruto's journey of perseverance and self-belief, while Shion found the protagonists of various Shonen Jump manga an invaluable source of motivation due to their relentless determination and positive outlook:

> *"Naruto, the main character in my favorite manga Naruto, taught me the importance of effort and not giving up. He was considered a dropout when he was little. However, he continued to strive to be the strongest ninja and believed in himself. His way of life is what I admire. (Satoshi)*

> *"The main characters in Shonen Jump are often successful because they have grit. My favorite manga (with a protagonist with a grit) are Hunter Hunter (Gon), Kimetsu (Tanjiro), One Piece (Luffy) and Fire force (Sinra). They never give up in any difficult situation and always try to challenge themselves with positive thinking. They have goals with a long-term perspective and work hard. They encourage those who read them. When things don't go well and I feel down, I read these manga. (Shion)*

Also, a few students mentioned characters from famous TV dramas, where the main character's perseverance in the face of significant challenges inspired them. For example, Mami explained:

> *"My role models are the main characters of 'asadora' (a morning drama series by NHK). Every main character faces big challenges, but they do not give up easily, keep striving and realize their dreams in the end. This makes me feel that even if I have a challenge, I can overcome it if I do not give up. For example, the main character of 'Maiagare' ('Fly up high') was a shy girl when she was a child. But, as she grew up, she became an active person and she decided to become a pilot when she was in university. She studied hard for the entrance exam of Civil Aviation College while going to university and doing a part time job. She could get a license as a jet pilot. (Mami)*

For Satoshi, Shion, Mami, and others, these fictional characters' unwavering effort and resilience influenced and motivated them, reinforcing the significance of effort and persistence in their own lives.

In sum, participants' responses revealed that their perspectives on intelligence and effort were impacted by certain key influential socializers – friends/peers, family, teachers, athletes, and popular media. These KIS shaped students' self-perceptions and learner mindset orientation, ultimately influencing their academic behaviors and approach to effort and challenges.

Learner Mindset Meaning System, Category #2: Students' Beliefs About and Responses to Mistakes

The second major key difference in students' learner mindsets regarded their beliefs and responses to mistakes. GM-oriented students had a distinctly different outlook and approach to mistakes made during the learning process than FM-oriented students did. As a whole, growth mindset students showed a tendency to believe that mistakes are a normal and necessary part of the learning process, with two overarching themes emerging from the data: the importance of learning from mistakes to not repeat them again, and of building resilience to setbacks by cultivating a feeling of not being afraid to make mistakes. In contrast, fixed mindset students

tended to interpret mistakes made as a sign of personal deficiency, and in their responses focused on the negative emotions they felt as a result. For most, this took the form of social embarrassment and worrying how others viewed them because of their mistakes, which ultimately resulted in a loss of confidence in themselves. This led to an aversion to try new things, and to situations where they perceived they might inconvenience others.

Growth Mindset-Oriented

Theme #1: Importance of learning from mistakes

Across the dataset many students expressed the growth mindset belief that mistakes are a normal and necessary part of the learning process. For instance, Ema and Chiaki noted:

> *"Making mistakes is important. We must constantly confront new things as long as we are students, so we cannot avoid making mistakes." (Ema)*
>
> *"I think making mistakes is a natural phenomenon in studying. I don't have to be embarrassed." (Chiaki)*

These participants expressed that being a student is the time when it is most OK to make mistakes; that it is expected as they are still learning the necessary knowledge and skills within their particular field. As Chiyoko explained:

> *"There is a Japanese proverb: Every failure is a stepping stone to success. I believe this proverb means that your past failure will be the base of your future success, so you don't have to mind making mistakes. In my opinion, we should make many kinds of mistakes while in university and learn from them. When we grow up and become adults, we will have responsibility for everything around us. So before graduation, I want to try a lot of things and learn new things from them." (Chiyoko)*

Safely being able to make mistakes and learn from them while a student was viewed as the way to mitigate future mistakes in their career, where the stakes may be higher and can have greater implications for people other than just themselves. Therefore in their responses, GM-oriented students expressed that learning from mistakes is a critical component to growth, as mistakes help to identify current areas of weakness. For example, Satoshi and Kenji noted:

"When I study, knowing my mistakes helps me know what I'm struggling with. Knowing that makes it easier for me to plan my studies." (Satoshi)

"*To be academically successful, I think it's about making the most of my mistakes. I find it difficult to get good grades from the beginning. By making mistakes and correcting them, I have improved my grades. So I think that analyzing mistakes and trying not to make the same mistakes leads to academic success." (Kenji)*

These students emphasized the significance of learning from errors as a fundamental aspect of growth. Reflecting on their mistakes allowed them to strategize and improve their study approach, ultimately leading to academic progress. Further, some participants explained that learning from mistakes was important as it not only resulted in current improvement but could also help prevent them from making similar mistakes in the future. As Naomi and Mizuki shared:

"I don't mind making mistakes. I might get embarrassed in that moment, but that experience will assure me that I will never repeat the mistake ever again….I usually try to see them as an opportunity to grow." (Naomi)

"When I was a high school student, I kept a "mistake collection note" for the university entrance exam. I wrote down a lot of mistakes I made in the trial exam in that book. By collecting the mistakes, I can know my weak points and I can learn more things correctly. I read through the book before every trial exam and by doing so the number of mistakes decreased! From these experiences, I think that mistakes will connect to the future's success, so I believe that mistakes are not necessarily bad." (Mizuki)

Thus, the experience of making mistakes could contribute not only to personal development but could also serve as a safeguard against recurring errors. Despite some initial embarrassment, overall the responses of GM-oriented students tended to regard mistakes in a positive light, viewing them as stepping stones towards improvement.

Theme #2: Importance of experiencing and overcoming mistakes to build resilience

A cluster of students also wrote about the importance of making mistakes early on and often in their schooling in order to normalize it and prevent oneself from coming to expect learning to be an effortless and mistake-free process. For example, Takashi explained:

"I have failed many times, and I could learn from my mistakes. On the other hand, if I had never made a mistake, I wouldn't have learned many things, and I would have been embarrassed if I had failed because I had never made mistakes because I would take it for granted that I wouldn't make mistakes. When I face a situation I was in before, I always remember failure experiences and how I should do that situation. This helps me never make the same mistake again. I utilize the most mistakes by thinking about the cause of my mistakes and the next action." (Takashi)

Learning from mistakes and understanding how to use them for self-improvement helped to inoculate these students to setbacks, allowing them to build resilience for future setbacks. Conversely, they expressed that students who solely experience success early in their schooling without mistakes miss out on the chance to develop effective coping strategies, potentially leading to difficulties in handling challenges later in life. Yet a number of GM-oriented students did disclose that they felt embarrassed, ashamed, or disappointed when they made mistakes, and stated they wanted to avoid making them if at all possible. However, these students also explained they accept mistakes as a normal part of the learning process and try to make the most of them when they inevitably occur. As Akira and Mami shared:

"If I can, I don't want to make mistakes because it is sometimes embarrassing. But no one is created perfect, thus we all make mistakes, and how we deal with those mistakes is key to our learning. If we can accept that mistake and learn from it, then it might be one of the reasons for our improvement. Thus if I can avoid making mistakes I don't want to make them, but I accept mistakes and because I know it helps me." (Akira)

"By making mistakes, I can find my weak point, and learn what I should do next time. I'm afraid of making mistakes, but I try to learn from my mistakes positively. I think making mistakes is an important opportunity to review my movements. Also, if something similar happens next time, I will be able to deal with this. So I don't be too afraid of making mistakes." (Mami)

While undesired, these students were able to realize the value of leveraging mistakes and negative emotions as a stimulus for improvement, to make that same mistake again. Rather than giving in to embarrassment and letting that influence the actions and risks they would take

academically in the future, they expressed that the important thing was to cultivate a feeling of not being afraid to make mistakes, and realizing their importance for improvement:

> *"There is much to learn from mistakes. However, if you make a mistake, you will be left with embarrassment. I think the most important thing is to cultivate the feeling of not being afraid to make mistakes. I believe that we grow more and more by challenging ourselves without fear of making mistakes." (Shinsuke)*

> *"Success will never come to those who do not try. I believe that not trying for fear of mistakes is the real mistake. I believe that every mistake we make brings us closer to success." (Yamato)*

Rather than succumbing to embarrassment and letting it shape their future academic actions, these students emphasized the need to foster fearlessness in making mistakes. They believed that cultivating a mindset unafraid of errors was crucial, as it allows for growth through challenges without the hindrance of fear, ultimately leading to success.

Fixed Mindset-Oriented

Theme #1: Negative affect of making mistakes

Rather than discussing the utilization of mistakes as an impetus for improvement like the GM-oriented students did, in their responses students with a FM-orientation tended to interpret mistakes in a wholly negative light. They ascribed this to negative academic experiences they had encountered during their schooling. For example, Chiaki and Tsukasa described:

> *"In school, I think there is a tendency to think that mistakes are bad. This would have something to do with the Japanese culture of "reading between the lines." I think that when mistakes happen, teachers make a big deal about it as a problem and students laugh at it, which creates an environment where it is hard to make mistakes." (Chiaki)*

> *"I think my high school had result-focused thinking. They focused on only the result and didn't look at the process. So, if a student made mistakes, teachers told them that "You should study more" or "You must work harder", but they didn't tell, think, or consult together about "How to take action concretely". In addition, if a student succeeded, teachers told "You should keep it always", so I felt too much pressure from school. And, when students who had succeeded before failed once, teachers lost interest in them. So, I never want to return to the environment of high school." (Tsukasa)*

Thus their learning environment, which focused more on results than the learning process, coupled with a lack of constructive support from teachers seemed to create for students an atmosphere that discouraged the making of mistakes. These experiences colored their views and responses, causing them to focus more on the negative emotions they felt when they made mistakes. For the majority, this took the form of embarrassment, particularly when the mistakes occurred in front of others. As Yuzuki and Midori expressed:

> *"Whenever I make a mistake, I can't help getting embarrassed, because I'm worried about what others think of me." (Yuzuki)*

> *"I have a tendency to feel ashamed for making mistakes. I think this is because I have too much pride even though that thing is not necessary. In particular, when I make a mistake in front of everyone, I worry what other people think. I think many Japanese think about it in the same way." (Midori)*

Because FM-oriented students generally feel their intelligence or ability is largely innate, they often compare themselves to others to gauge their self-worth. As such, these students expressed being overly concerned about what others thought of them, expressing anxiety towards social embarrassment and an aversion to others' seeing their mistakes (i.e., their inherent weaknesses). For instance, Asuka and Naomi recounted:

> *"When I make a mistake, I feel that I am inferior to other classmates. I care what other classmates think of me. This makes me embarrassed." (Asuka)*

> *"I get very embarrassed when I make a mistake in public. This happens especially when I'm the only one who made a mistake, and everyone else around me didn't seem to have a problem. It makes me feel dumb." (Naomi)*

This fear of public embarrassment manifested itself in feelings of both shame and a perceived inferiority to their peers. While a few participants like Naoko and Rei stated that they knew mistakes could be beneficial if learned from, they explained that they still could not help themselves view them as anything but negative when they occurred:

"I understand the importance of making mistakes and try to think making mistakes is sometimes effective for my improvement. However, embarrassment surpasses the way of thinking." (Naoko)

"I know that making mistakes is not a bad thing and helps me learn. But when I make mistakes, I get so depressed and think negatively. So it is hard for me to think positively about making mistakes." (Rei)

In addition, students who held perfectionistic tendencies, such as Kimiko and Misao, seemed especially susceptible to this way of thinking:

"I am used to performing well and I have high standards for myself. Because of that, when I make mistakes regarding something that I really want to be proficient at, I tend to feel discouraged and lose confidence in myself." (Kimiko)

"I often hear that making mistakes is okay and we learn from mistakes, but nevertheless, I still get embarrassed whenever I make a mistake. I would often beat myself up whenever I make a mistake, and I get worried if people would judge me for my mistakes. I often become depressed whenever I made mistakes." (Misao)

Due to the high standards these students held, mistakes in areas of personal significance seemed to have a powerful negative effect on their emotions, leading to self-criticism and feelings of discouragement and even depression. Some of these students, like Hiro, described having had effortless success throughout most of their academic life, and thus being unaccustomed to making mistakes:

"I often get embarrassed when I make a mistake. I was praised all through junior high school and made very few mistakes until middle school. So I'm not used to making a mistake." (Hiro)

As discussed in the growth mindset section above, students who face mistakes early in life have opportunities to gradually build resilience to them, which is helpful to overcome future setbacks. However, high-achieving students that largely experienced mistake-free success at school appeared to be lacking in the coping strategies and resilience needed when facing setbacks.

Theme #2: Aversion to sharing opinions or new challenges

Due to this tendency to be overly worried about how they appeared to others, FM-oriented students predominantly focused on wanting to avoid making mistakes. This aversion seemed to result in a tendency for students to refrain from volunteering answers, sharing opinions, or asking questions in class when they were uncertain, for fear of appearing stupid. For example, Yuzuki and Eiko noted how this had hindered their ability to freely ask questions in class and volunteer opinions:

> *"I am not good at expressing my opinion in front of others because I am afraid of making mistakes. It is difficult for me to ask questions or volunteer ideas in both Japanese and English." (Yuzuki)*

> *"I am afraid of making mistakes because I have been scolded or made fun of. Also, I often care about what others are thinking of me when I make mistakes." (Eiko)*

Students' fear of mistakes and judgement can negatively influence their academic behaviors and achievement. Over time this behavior can compound, causing them to be afraid to try something or take risks challenging new things. As Akie and Tsukasa noted:

> *"I always get embarrassed when I make mistakes. I know I don't need but I can't help it. And I'm afraid of making mistakes so I can't try to speak my idea and do new things." (Akie)*

> *"When I make a mistake, I think I wish I could turn back time. Or, I wish I could disappear from this world. So, I tend to think too much before doing something. Usually, I am too cautious so I am not good at starting new things." (Tsukasa)*

To the extreme, this can even result in students who are quick to withdraw or give up after making mistakes. As Yudai shared:

> *"I seriously tend to give up easily. I'm very afraid of any mistakes, setbacks, and embarrassment which is caused by them. Therefore, when I make any mistakes in public because of my skill, word and behavior, I immediately decide to give up what I've been doing." (Yudai)*

Therefore overall FM-oriented students, driven by a heightened concern about their image, tended to prioritize avoiding mistakes rather than learning from them. As noted above, this can lead students to actively avoid participating in class as well as taking on new tasks or challenges

due to a fear of looking incompetent, which ultimately can negatively impact their academic achievement.

Theme #3: Aversion to 'Meiwaku'

In addition, for a few students, one other factor contributing to their fear of mistakes was related to the Japanese concept of '*meiwaku*,' which translates to "trouble," "bother," or "nuisance," and refers to something one does that inconveniences other. These students expressed a worry that their mistakes imposed a burden or created difficulties for others, which led them to be overly sensitive and concerned about making public mistakes. For example, Yudai and Rio explained:

> *"Sometimes I have some questions about the contents or words of classes but I hardly ask them because I always wonder whether my questions show me stupid or ridiculous to other students or friends. For example, if I ask questions about what the teacher mentioned already in the class, then the question means I'm not smart enough to grasp the contents at once and may ruin the atmosphere. I feel nervous about such a situation, so I often hesitate to ask questions face-to face." (Yudai)*
>
> *"I am afraid to make mistakes in front of others. I do not want others to be annoyed by my words." (Rio)*

Thinking about the feelings of others is generally considered a positive thing in everyday life; however, for these students it led them to be overly sensitive to how others perceived them, and thus greatly concerned about making public mistakes that might cause meiwaku. However, such a fear can also hinder their participation and learning and have negative influences on their academic success.

Theme #4: Importance of context

However, a few participants in their responses expressed that how they felt about making mistakes was conditional, and depended on the context of the mistake and the environment it

occurred in. For example, for Kaede, it depended on who witnessed the mistake, and if anyone else made a similar mistake:

> *"How I feel about making mistakes depends on the situation. For example, it's not embarrassing to make a mistake in front of someone who is willing to forgive. However, it's embarrassing to make a mistake in front of someone you meet for the first time. Also, it's not embarrassing to make a mistake while everyone is making a mistake, but it's embarrassing to make only one mistake while everyone is answering correctly. So, I think it depends on the situation around me whether I am embarrassed or not." (Kaede)*

For Kaede, factors such as the people present, their familiarity, and the overall situation were key, illustrating the nuanced variability of perceptions surrounding mistakes. For Fumi, what was important was her motivation in the area she made the mistake in or her mood when the mistake occurred:

> *"There are times when I consider my mistakes to be learning and times when I don't. When my motivation is high, mistakes are considered important. However, when my motivation is low or I am feeling negative, I blame myself for my mistakes and don't even want to do anything anymore. In this way, my perception of my mistakes changes depending on how I feel." (Fumi)*

How she interpreted a given mistake fluctuated based on her level of motivation and her emotional well-being, highlighting the interplay of these factors and their influence in altering one's perception of errors as either opportunities for growth or sources of self-blame. For Hikari, what was most important was the teacher and classroom culture that had been created:

> "*When I make a mistake in my classes at university I often get embarrassed. I often don't want to make any mistakes because making mistakes sometimes means that I don't have enough knowledge. However, there are some classes in which I don't feel ashamed even though I make mistakes. In those classes, neither the teachers nor the students mind the students' mistakes and even think they are useful to deepen students' understanding. I think the difference between the class in which I feel ashamed and one in which I don't feel is the atmosphere of the class where people in the class learn together." (Hikari)*

Her comment underscores the significant impact that teachers and their classroom culture can have on students' attitudes towards mistakes. This topic will be returned to and discussed in more detail in the next section and as part of Research Question #2 in the following chapter. Lastly,

several students shared that since they entered the university setting, their beliefs regarding mistakes had begun to change positively. For instance, Suzu and Rio expressed:

> *"I'm not good at the atmosphere which we cannot make mistakes when I was in junior high/high school. However, in university, the students and teachers accept various opinions or answers, so I am relieved of this environment." (Suzu)*

> **"***I often get embarrassed when I make a mistake, but after enrolling into university, I try to think what I can learn from the mistake and what I should do to not make the same mistake again next time. When I reviewed my answers in high school, I thought I had to make no mistakes on tests and every time I took tests I felt nervous. The more nervous I felt, the more mistakes I made and I disliked taking tests. However, in university, I changed my mind for tests. I started to think tests are to measure what I studied. Thanks to that, I could change my feelings about mistakes little by little." (Rio)*

For them, the atmosphere of university is more accepting of various opinions and answers than they had experienced in high school, particularly while preparing for the university entrance exam. This gradually led them to feel safe freely expressing their ideas and view mistakes as something to learn from, not be judged by. As a result, these students began to focus on learning from their mistakes and saw tests as opportunities for self-assessment and growth, gradually transforming their attitudes towards errors.

In summary, the responses of students in this section revealed a divergence in their perspectives on mistakes, highlighting a major difference between those with a growth mindset or fixed mindset orientation. The GM-oriented students embraced mistakes as normal and integral to the learning process, emphasizing their value in identifying weaknesses and driving improvement. They believed in making mistakes early to build resilience, viewing them as stepping stones toward success. In contrast, the FM-oriented students tended to fear mistakes due to negative academic experiences and concerns about their image. This aversion to mistakes seemed to hinder their class participation, their willingness to undertake challenges, and potentially impacted their overall academic achievement.

Learner Mindset Meaning System, Category #3: Student's Beliefs About and Responses to Setbacks and Failure

The final key difference in students' learner mindsets was their beliefs regarding setbacks and failures and their responses to them. This theme students wrote about much more than the prior two, illustrating how salient and impactful setback and failure beliefs were for them and their academic achievement. GM-oriented students discussed three overarching themes related to this: the importance of reflecting on failures for personal growth and success, the importance of overcoming and coping with the negative emotions associated with failure, and optimistic perceptions regarding how others viewed their failures, which positively influenced their responses to them.

In contrast, FM-oriented students' responses discussed perfectionistic tendencies and a view of setbacks and failures as evidence of a deficiency, leading to negative emotions such as lack of confidence, social embarrassment, and prolonged sadness or depression. They also held pessimistic perceptions regarding how others viewed their failures, which negatively impacted their responses to them.

Growth Mindset-Oriented

Theme #1: Importance of reflecting on failures for personal growth and learning effective strategies

In addition to their beliefs concerning the value and benefits of making mistakes during the learning process, GM-oriented students similarly held a predominantly positive view regarding setbacks and failures. In their responses, students shared how these were an inevitable part of learning something, and how they tried to utilize them as an opportunity for self-reflection and improvement. For example, Chiaki and Shion explained:

> *"I think it is impossible to be successful in life without failing. Everyone experiences failure because no one can accurately predict everything. It is very difficult to do everything without*

mistakes when unexpected events occur. It is precisely because of failures that we can grow and come closer to success." (Chiaki)

"Accumulating failures and improving each time we make a mistake will let us get closer to success. It is impossible not to fail in experiments, scientific research, work, etc. Also, in human society, interpersonal relationships, courtesy, and manners are acquired from childhood through repeated failures and reflection. This is how we grow as human beings. Without failure, success is impossible, and growth is impossible." (Shion)

As such, students expressed that failure was a normal and even necessary factor of being successful both in school and in life. Moreover, they stated that it is important to encounter failures to gain experience and further competence by overcoming them. As Naruhito and Mizuki shared:

"I think it is impossible to be successful in life without failure because failure makes us stronger. I think people who experience a lot of things have deepness as humans. Failure will happen in our life, so people without failing don't know what to do when they meet failure. In the first place, I think those who know failures are more competent than those who don't. It is necessary for all people to experience and overcome various things. That's why I don't think it is successful in life without failure." (Naruhito)

"I don't think it is possible to be successful in life without failing because I think failing is important to be successful. People can learn how to overcome difficulties and challenging problems from failure, so people who have never experienced failure don't know how to deal with big problems. When we challenge ourselves, it is almost difficult to avoid making mistakes at first. We can approach success by experiencing many kinds of failure and overcoming them." (Mizuki)

The perspectives shared by Naruhito and Mizuki echoed the sentiment by many of the participants that encountering failures is an integral part of fostering resilience, building the skills necessary to overcome obstacles, and achieving success in life. Through such experiences students can attain the confidence to face and conquer future failures. Furthermore, as Rio expressed, failure experiences are also necessary to prevent us from becoming undeservingly overconfident in our abilities:

"If there is no fault in the process of success, people get overconfident. Being modest is one of the most important things for success, so I think that experiencing failure and keeping being modest are necessary for success." (Rio)

Recognizing the value of failure and maintaining humility are essential elements for achieving success. As such, failure experiences can serve as a crucial counterbalance to prevent unwarranted overconfidence in one's abilities. Some students also framed setbacks and failures as guiding moments, enabling them to realize their weak points and the need to find a more effective strategy or efficient method in their studies. As Maho and Akemi noted:

> *"I don't think it is possible to be successful in life without failing. I believe that failure makes people grow. When people have failures, they can try to figure out how to improve their behavior. In my opinion, reflecting on one's actions and continuing to try to succeed is the key to growth." (Maho)*

> *"We learn what to do to succeed from failures. For example, we realize that studying is necessary to get a high score in an exam from getting a low score without effort. In addition, we get some tips from other people's advice. If there is no opportunity to know these things, people do everything depending on only their thoughts and it is not efficient." (Akemi)*

It is often not until we are faced with a setback do we consider the need to seek out different strategies or alternative methods. Thus for these students failure served as a catalyst for growth, fostering self-reflection and the pursuit of success through improved actions and strategies.

Theme #2: Importance of overcoming and coping with the negative emotions associated with failure

Additionally, a number of students explained that what is vital after a failure is reflecting on the factors that led to it. As Kyo and Maho noted:

> *"When I experience failure, I think about the factors of it such as my lack of effort or accident. I think it is better to do so than to be depressed. I can avoid failure next time by using what I thought." (Kyo)*

> *"First, I determine why I failed. Then, I think about how I can improve. Once I know what I need to improve, I try again. I repeat this process over and over until I succeed. I think something needs to be improved, because repeating the actions that failed will only lead to another failure." (Maho)*

These students expressed that rather than allowing themselves to wallow in negative feelings over the failure, it is more productive and effective to instead analyze and reflect on what went

wrong and why to improve that weakness and avoid making the same mistakes again. In this way failure can be leveraged to facilitate growth and future success. However, not all GM-oriented students discussed failures in such a positive light. Some explained how they were not immune to the negative feelings that often accompany falling short of one's goals, sharing the shock, disappointment, or despair they felt. For example, Mami and Kasumi stated:

> *"I am often shocked when I experience failure, and on occasion I can't change my mind quickly because I think about my failure many times and get embarrassed or feel sad. But then I try to think what I have to do next time so that I don't make the same mistake again." (Mami)*

> *"When I experience failure, I will often be shocked and sometimes cry. This is because I feel as if I am denied. After that, I then analyze why I made a mistake. By doing this, I can find my weaknesses and reset my goals. Throughout my life, I repeat this process. I think that I can improve my abilities this way through trial and error." (Kasumi)*

Despite their initial disappointment and negative emotions, these students understood the silver lining merits of such setbacks, and ultimately could work past their negative feelings in order to prevent similar failures in the future. However, the powerful impact negative emotions after a setback can have should not be understated. Different from most responses, Aimi and Naomi had some unique insights, emphasizing first the importance of allowing oneself to fully embrace and accept the negative emotions that came in the face of failure, rather than immediately forcing themselves to try and view it as a positive:

> *"I feel very depressed because I have regrets about what I should have done. But I believe that it is important to be depressed. Many people think that "failure is the key to success" and "always look forward". However, if you try to force yourself to be positive, you will end up feeling overwhelmed later on. The impatience that comes from thinking that you can't be depressed will in fact push you into a corner. That's why when I fail, I try to be depressed until I feel better, then challenge again." (Aimi)*

> *"When I experience failure, I feel very sad, and it takes some time to move on. To accept my failure, I talk to a lot of people and try to get advice. I think feeling sad and depressed after experiencing failure is okay, as long as you learn from it and get back on your feet." (Naomi)*

Interestingly, these students expressed the importance of allowing themself to fully feel and process the negative feelings that accompanied the failure experience. By first focusing on processing the negative feelings that accompanied the failure experience rather than ignoring or denying them, Aimi and Naomi allowed the negative feelings to run their course. This then enabled them to utilize a growth mindset orientation like the students above, to make use of the failure and learn from it for future success.

Theme #3: Optimistic perceptions regarding how others viewed their failures

A final interesting point was that GM-oriented students also held an almost entirely optimistic outlook regarding how they felt others perceived them when they failed. They expressed a strong belief that most people are genuinely kind and caring, and thus naturally supportive of them when they make mistakes or experience failure. As Chiyoko and Kasumi explained:

> *"I think most people don't pay attention to my failure. Some people may laugh at me thinking that I was a careless person, but most people don't think about my failure. We tend to think that other people see us, but actually, I think it is wrong. Every person makes mistakes and doing so is not strange, so when I fail, I feel others have warm eyes for me." (Chiyoko)*

> *"Most people think that making mistakes enables us to improve our abilities. Even if they notice that I failed, they will say to me, "You do not have to be disappointed with yourself. I know that you always made efforts to do your best." By listening to them, I will be able to accept myself and regain confidence." (Kasumi)*

While these students initially feared judgment, they came to realize that mistakes and failures are a natural part of life, and often trigger feelings of empathy and support rather than criticism and judgement from those around them. Another cluster of students shared their view that, for the most part, others were indifferent to their failures. For instance, Chiaki and Ryoichi noted:

> *"I think other people do not think anything of me when I fail. This is because I do not think anything about anyone who is not a close friend or family member when I see them fail. I would be sympathetic if it were a close friend or family member. However, I don't care if*

someone I don't know is failing at something because it doesn't affect me or those around me. Therefore, I think if I fail, others won't think anything of it." (Chiaki)

"*I do not think anything about it because everyone has experienced failure at least once in their life. If someone makes fun of our failures, it seems to me that he/she is a poor person with no room in his/her heart. We must have respect for our failures because they are proof that we tried something." (Ryoichi)*

Similarly, this group of students' feeling of others' indifference regarding their setbacks enabled them to not worry or be overly influenced by others' perceived negative views. By normalizing mistakes and minimizing their importance, they could instead just focus on overcoming the setback without allowing themselves to be overly concerned or negatively influenced by others' views of them.

Fixed Mindset-Oriented

Theme #1: Negative affect regarding failures

In contrast to the above students, FM-oriented students described a tendency to get weighed down and disheartened by setbacks and failures. For example, Naoko and Koji shared:

"I get depressed and care about it for a long time when I fail. Even if I try to tell myself not to care about it too much, and failure can lead to success in the future if you learn something from it, I cannot be positive." (Naoko)

"I tend to think I am helpless once I fail. I consider failure to be a very bad thing. So even the smallest failure causes me to feel that way." (Koji)

These students interpreted failures not as temporary setbacks to learn from, but rather as evidence of a personal deficiency. This resulted in them identifying with their failures, causing stronger negative emotional reactions such as loss of confidence and depression. Some of the FM-oriented students also expressed a tendency for perfectionism. These students held high standards for themselves, and thus were even more sensitive to negative emotions when their results fell below their expectations. As Asami and Mariko noted:

"I think I tend to evaluate my qualities in extreme black or white categories. For example, once I fail at something, I think I am not good enough and lose confidence in myself. In a sense, I am a perfectionist. I tend to focus only on results." (Asami)

"I am a perfectionist, so if I don't get everything right, I hate everything." (Mariko)

Rather than driving them to learn from and leverage their failures for improvement and future success, these students' perfectionism instead seemed to be a negative influence, heightening their negative emotions and causing them to doubt themselves and their own abilities.

Theme #2: Negative perceptions regarding how others' view their failures

Also, in contrast to the GM-oriented students above, FM-oriented students greatly worried what other people thought of them. They tended to perceive that they were being looked down on or laughed at by others. For example, Naomi and Nana explained:

"When people see me fail, I'm scared that they will think that I wasn't good enough and my efforts were worthless." (Naomi)

"I feel so embarrassed to show my failure to other people. I don't want people to think I'm not good at something or I'm not what they expected me to be. I think it's very important to me how people think about me. That's why I'm worried about how people think about my failure." (Nana)

This concern about external perception underscored these students' heightened unease regarding judgement by others regarding their failures. Additionally, a few students expressed a worry that others would be disappointed with them or let down because of their failures. As Setsuko and Fumi noted:

"I feel really ashamed. I'm afraid that someone who sees my failure is disappointed in me. I want to be seen as a useful person. I understand that failure is important, but experiencing failure in front of others is embarrassing because it leads to ruining my image." (Setsuko)

"I think other people get disappointed at me when I fail. I may be too worried about their reaction but I cannot stop thinking so. When I was a child, I tried to behave as a good student and daughter. I have little experience of being scolded. From this, I am very afraid of being scolded now. I am used to not being scolded but being praised so I am very afraid they think I am not a better person than they expected." (Fumi)

These students expressed concerns about disappointing others or falling short of expectations due to their failures. Setsuko and Fumi's reflections touch on the internal conflict they faced between understanding the value of failure and the fear of tarnishing their perceived competence in the eyes of those around them.

In summary, GM-oriented students tended to view their failures as opportunities for growth, reflection, and self-improvement, while fixed mindset-oriented students interpreted their failures as personal deficiencies and experienced negative emotions like lack of confidence or depression. Moreover, the former group exhibited optimistic perceptions of how others viewed their failures, while the latter group worried about external judgment and disappointment. This differentiation emphasizes how the mindset a student holds about setbacks and failures influences their responses and subsequent approach, impacting their learning and academic achievement.

Key Influential Socializers and Lived Experiences

The second part of research question one inquired into the key influential socializers (KIS) and lived experiences that students identified as having shaped their learner mindset/meaning system beliefs and behaviors. This final section will focus on students' setback/failure beliefs. In general, students stated that they were most impacted (for good or bad) by the people they had spent the most time interacting with in their lives to date – namely their family, school, close friends, and Japanese society. Due to the proximity and duration spent with/in these groups, it was unsurprising that they were the most cited KIS for students concerning their failure beliefs. However, whether students ultimately ended up coming to hold a predominantly growth or fixed mindset meaning system depended on the beliefs that these key

influencers held and imparted to them, as well as how they operationalized these beliefs in actions.

Category #1: Family

Growth Mindset Theme #1: Unconditional support

In their responses, many students discussed how a certain member of their family had positively influenced their failure beliefs, fostering a growth mindset orientation in them. For some, like Mami and Shion, this was because of their family's unconditional support whenever they failed since they were young:

> ***"****I think that my family has most influenced my beliefs about failure because they have told me how important it is to try without worrying about failure since I was a child. They always accept me even if I fail. Thanks to them, I can have a more positive attitude for failure." (Mami)*
>
> *"I think my family has most influenced me because I spend the most time with them. Also, when I fail, they always forgive my failure and give some advice. It is very helpful for my growth and finding a more efficient way to do that. Thanks to my family, I was encouraged many times and I could continue without giving up." (Shion)*

Thanks to their family's positive and encouraging response to their failures, these students came to develop a favorable outlook on setbacks. This led to a cultivation of resilience as well as a willingness to use and learn from errors, ultimately molding their overarching approach to academic learning. Some students also gave specific examples of familial support regarding the university entrance exams. In Japan, if students fail this exam they often need to pay tuition to join a cram school to prepare for the test again the following year, as well as pay the high exam fee again. Thus, students feel a lot of pressure and negative emotions around failing this exam. However, students explained that despite these steep costs their family remained positive and supportive of failure. As Aimi and Yasuko recounted:

> *"Even if I fail, my family will encourage me. They don't try to force me to look forward. They are there to help me feel better. When I was rejected by my first-choice university and decided*

to go to [X] University, they said, 'maybe [X] University would have been a better choice for you because of its school culture.' They changed my way of thinking about "failure." (Aimi)

"When I was a third-grade high school student the biggest interest for me was the university entrance exam. I studied hard to enter this university, but I failed to pass the exam. To tell the truth, I wanted to try for this university again one year later, but it is not easy to say this since that means my parents have to pay another million yen for me. However, they told me that if I really want to enter this university, they are willing to pay for me. They said, "You do not lose anything because of failure but gain experience." My parents encouraged me so warmly that I could do my best." (Yasuko)

For such students, the unwavering positivity and support from their families not only provided solace in moments of failure, but also reshaped their perceptions of failure itself, emphasizing the value of experience and growth over the fear of falling short. Yet some students explained that it was not just that their family unconditionally were accepting of their failures; rather, they were expected to learn from these experiences and work hard to improve themselves in order to succeed next time. For example, Chiaki noted:

"My family generally believes that failure happens to everyone, and they rarely think that failure is only a bad thing. They do not let mistakes be just mistakes, but try to improve. Therefore, if I make mistakes and do not try to improve it, they scold me, but if I make mistakes and try to improve it, they do not scold me." (Chiaki)

What was most salient for all the above students was the knowledge that they had their family's support, and that their family's love was not conditional on their success. This prevented them from becoming failure averse or overly concerned about judgement or criticism from their parents, enabling them to focus on the learning process and striving to improve themselves.

Growth Mindset Theme #2: Parents normalizing failure

Additionally, some students explained how their parents normalized failure for them from a young age by sharing and discussing their own personal failures in life. For instance, Aki and Hideko explained:

"I think my parents have most influenced my own beliefs of failure. This is because my parents told me about their various experiences of failure since I was small, and I learned

that many people fail when they work on something. Sharing experiences of failure will not be an easy thing. So, I thank my parents for having talked about their experiences. Now I believe it is OK to fail when I try to do something and develop myself." (Aki)

"I think my mother has most influenced my own beliefs of failure, because I grew up watching my mother. I spend a lot of time with her, so I am very influenced by her in various situations. My mother always encourages me when I fail. Also, she teaches me that failure is the key to success. She sometimes tells me about the mistakes of her job. She doesn't hide her failure and tells me the experience without hesitation. In addition, she often advises me from experience when I face some troubles. I want to be like her by trying many things without being afraid of failures." (Hideko)

By seeing that even their parents were not perfect or immune to failure modeled for them that it was a normal part of the learning process and life. Additionally, having their parents candidly discuss their past failures helped these students realize that admitting one's shortcomings is healthy and normal, and not something that one needs to keep from others or be ashamed of. What they learned from their parents' example was that more so than failure itself, what was most important was what one does next, how they use that experience to learn and further develop themself. Similarly, another way students' families fostered a growth mindset in them was by helping them to reframe failure as an important and normal learning experience that everyone must go through in life to be successful. As Hana and Maho shared:

"My family believes that failure is experience. Ever since I was a little girl, whenever I made a mistake, my mother would always say, "That's also an experience," or "You had a good experience. They know that my failures will help me in the future." (Hana)

"My family views failure as a process of success. My father influences this way of thinking. He would encourage us when we made mistakes by saying, "Failure is the source of success." So, failure did not seem like a bad thing." (Maho)

This reframe helped both normalize setbacks and foster resilience in these students. Similarly, a few students also provided examples of how their family's comments helped them to learn with and overcome the negative emotions that often accompany failure. For example, Mizuki and Mei noted:

“*My family members, especially my mother, believe failure is not always bad. When I fail at something and talk to her about it, she always applies it to me with encouraging words. For example, “You didn't die! Then, all right! Keep going!” My mother regards failure as a step toward success.” (Mizuki)*

“*My family has always been supportive no matter if I failed or succeeded in something, and I feel like a phrase I have heard often is “Well, now you are that much smarter” or being asked “And what have you learned from that?” when I failed at something. There was never much judgment regarding failure (of course depending on how much effort I had put in from the beginning).” (Mei)*

By providing uplifting words and supportive questions, these GM-oriented family members helped the students mitigate the negative emotions surrounding failure by demonstrating how to reframe failure as a positive stepping stone to success. This helped to promote a mindset of resilience and growth within them as well. Furthermore, students shared in their responses that some family members also imparted to them the belief that it was better to try at something challenging and fail than to fear failure and not try at all. As Asuka and Kazue explained:

“My parents told me that when I failed in my exams, it meant something to them that I tried. I was taught that if I ran away in fear of failure, I would regret it.” (Asuka)

“My family's view of failure has had the most influence on my thinking because they allow me to challenge myself. And they forgive me when I fail. When I took the university entrance exam they would forgive me for trying without worrying about failure, saying, "If you fail [X] University entrance exam, you can just become a ronin [a student who failed a college entrance examination and is studying for a year to take it again].” (Kazue)

Thus, these family members ingrained in the participants the idea that taking on difficult endeavors and experiencing failure was more worthwhile than avoiding challenges out of fear of failing. A key factor for this was not just their parents’ approval to take risks and challenge ambitious things, but also the knowledge that if they did end up failing their family would be understanding, supportive, and forgiving rather than critical, judgmental, or disappointed. As Kanata and Yuzuki expressed:

"My parents always tell me that you can fail and should try. They say it's most wasteful to not act for fear of failure. They also taught me that by taking on challenges without fear of failure, I may get good results that I didn't even expect." (Kanata)

"My parents believe that failure is inevitable and we should fail a lot. When I decided which school I wanted to apply to, I was afraid of being rejected, so I decided to go to a university that was lower than my level. However, they encouraged me to go to the university I wanted to go to, even if it was difficult, because we only live once. As you can see, my parents think that we need to fail in order to spend meaningful time." (Yuzuki)

By having parents who normalized failure and supported them unconditionally, these students came to take risks and strive for challenges that they felt were beyond them—challenges they would never have attempted, much less achieved—if not for such positive failure beliefs. For example, Kazue, Yuzuki, and others would not have chosen to undertake [X] university's entrance exam (and subsequently pass it) if not for their parents' positive failure mindset beliefs.

Fixed Mindset Theme #1: Failure as a something negative to be avoided

However, while a small number, several students discussed their family as having had a negative impact on their beliefs and responses to setbacks and failures. In their responses, Satoshi and Takashi explained how their parents viewed failure as unacceptable:

"My parents believe failure is a bad thing, and when I make mistakes, they scold me." (Satoshi)

"My father regards failure as a bad thing. He always looked for results in academics and baseball without looking at the process. Therefore, he praised me for good results, and got mad when I failed." (Takashi)

In contrast to the GM-oriented students' comments about parental support and encouragement in the face of setbacks, these students expressed their parents' disappointment or anger with them. Over time, this resulted in them coming to interpret failure as a negative thing to be avoided. Additionally, high parental expectations manifested in a constant pressure to always succeed and thus be seen as successful in others' eyes. For instance, Fumi noted:

"I think other people get disappointed at me when I fail. I may be too worried about their reaction but I cannot stop thinking so. When I was a child, I tried to behave as a good student

and daughter. I have little experience of being scolded. Because of this, I am very afraid of being scolded now. I am used to not being scolded but being praised so I am very afraid they think I am not a better person than they expected." (Fumi)

Fumi came to attribute her self-worth with her results, believing that she was only a "good" student or daughter as long as she was succeeding. This led to a strong aversion of falling short of others' expectations and a fear of failure in general. Additionally, parental fear of failure also seemed to influence students' willingness to try new things and take risks. As Sasuke explained:

"*My father believes that we should avoid failure. He is very afraid of failure, so he is afraid to try things. He lost his excitement in exchange for safety. My father's way of thinking had a great influence on me." (Sasuke)*

In his case, his father's apprehension towards failure and thus aversion to taking chances significantly influenced his own beliefs and behaviors. Thus, through their negative responses to their child's failure experiences or through their own attitudes and responses to failures, these students' parents seem to have fostered a fixed mindset belief of failure as a negative thing in their children.

Category #2: School/Teachers

Growth Mindset Theme #1: Learn from failures to improve oneself

In addition to family, school was the second major influencer of students' failure beliefs. For some students, they encountered a beneficial KIS in the form of a teacher, who provided positive learning experiences which they came to internalize. These students noted how their teachers supported them in the face of their failures and provided guidance and support to help facilitate their future success. For example, Yua and Akemi explained:

"Some teachers supported me if I failed and gave me some advice so that I could succeed in that thing." (Yua)

"One of my junior high school's teachers was very tolerant about failure. She always said that she doesn't get angry for almost anything. Rather, she needed us to reflect and regret on our failures." (Akemi)

These students expressed how certain teachers did not respond to their failures with anger, but rather with compassion and support. This allowed students to realize that such setbacks were not inherently negative, but rather an important part of learning, something to reflect on to improve themselves. Another subset of students focused on this, explaining how their teachers strove to normalize failure and how this influenced them to view it mainly as a learning opportunity for improvement. As Kanata and Souma shared:

> *"Most teachers say that classrooms are the places you can fail. My high school English teacher taught me to learn from mistakes. He told me that no one answered all the questions correctly from the beginning, and that learning from mistakes, the so-called review, is important. Since then, I have come to think positively that even if the score of the regular test is bad, there is always room for growth. I learned from him that what I do to avoid making the same mistakes after experiencing failures is important." (Kanata)*

> *"When I was an elementary school student, my teacher said to us that we did not have to be shy to fail in the classroom and we should put our hands up to say our opinions. This experience made me gain confidence." (Souma)*

By normalizing mistakes and failure in their class, such teachers imparted to students the necessity of learning from setbacks and using the experience to shore up their weakness to be successful next time. This encouragement and emphasis on learning from mistakes contributed significantly to these students' growth mindset development. Rather than causing students to avoid or fear failure, they instead strove to instill in students' the belief that it is OK to share their opinions and challenge things and to have confidence in themselves. These GM-oriented teachers also sought to promote in their students' resilience and perseverance in the face of setbacks. As Natsu and Satomi recounted:

> *"My teachers believe failure is a trigger we can use to grow up. They often said that it is important what to do when we make a mistake. My teachers taught me not to give up." (Natsu)*

> *"Math was my weak point when I was a high school student. I thought that I cannot solve all math questions. But I met one math teacher in my school. He said that "students in my class will definitely be able to do math". And he worked hard to teach us. Finally, I was able to do math." (Satomi)*

Natsu and Satomi's descriptions underscored the teachers' belief in using failure as a catalyst for personal growth. By emphasizing the importance of response to mistakes and encouraging perseverance, these teachers not only imparted academic skills but also instilled a mindset that embraces obstacles as opportunities to learn and improve. With teachers such as this, even within a culture of high stakes testing it remains possible to foster a growth mindset view, as Hana explained:

> *"My high school believes that failure is the practice to avoid failure at the most important time. Because my school emphasized the importance of taking entrance exams, they believe that it is okay to fail a regular test, but we should not fail on the day we take the college entrance exam. Teachers consider failure as learning for the next time." (Hana)*

Lastly, in addition to providing encouragement and support, some teachers also shared their own personal setbacks and failures with their students. They demonstrated that they too were not perfect but had experienced failures and could eventually overcome them through their own efforts. As Mami recounted:

> *"Teachers often say failure is not a bad thing and it is important to learn from them and to try to improve yourself. My homeroom teacher in junior high school said that at first, he was not good at speaking in front of others or communicating with other people and that regarding communication, he failed many times. He told us that although he struggled, he could improve his communication skills through trial and error." (Mami)*

By offering not only words of encouragement but also openly sharing their own experiences of setbacks and how they worked to overcome them, these teachers served as a powerful example to students, illustrating how to use failures as opportunities for growth and improvement.

Fixed Mindset Theme: School/teachers instill a fear of failure

However, the overwhelming majority of students discussed school as having had a predominantly negative influence on their failure beliefs, sharing salient academic experiences they felt fostered in them a fixed mindset orientation. Students discussed how they perceived

their school learning environment as generally not allowing for failure. For example, Yudai and Misao explained:

> *"My school has most influenced my belief of failure because it put the fear of failure into me. They taught me the embarrassment of making mistakes in public. Some students and teachers laugh and look down on people who make mistakes. Failure can be clearly exposed with scores of exams and this system also contributed to putting the fear of failure into me." (Yudai)*

> *"During high school, school influenced my own beliefs of failure. Since my surroundings viewed failure as something negative, I also tried my best to avoid failure, leading me to have a fixed mindset. I always hesitated to ask people whenever I didn't understand something because I didn't want to seem unintelligent." (Misao)*

The shared experiences of such students illuminated a pervasive sentiment that their school environments propagated a culture of avoiding failure, which instilled embarrassment and fear regarding setbacks. Furthermore, students discussed the seeming discrepancy between being told by their school/teachers that failure was not a bad thing and the actual reality of their academic experiences. As Fumi and Haru elucidated:

> *"In my experience, school is the most influential relationship regarding my belief of failure. I am very afraid of failure. Many teachers say that failure is a step to the next success and we don't have to mind failure, but I feel that is not true. In my high school, it was difficult for students to recover once they failed." (Fumi)*

> *"Many teachers say that failure is not a bad thing. In reality, however, failure creates irreparable situations." (Haru)*

For these students, while some of their teachers stated the importance of failure in life, the actual reality of the standardized testing culture of school promoted the opposite, leading to a learning environment in which failures were a major, even "irreparable," obstacle in their eyes and thus something to fear and avoid. Also contributing to these students' fixed mindset orientation was their negative experiences encountering strict teachers that were not tolerant of their failures. For example, Hikari and Kasumi recounted:

> *"I think school has most influenced my own belief of failure. Since I entered elementary school, I have made many mistakes and failures on exams and in classes, and have gotten*

cold looks from my teachers and classmates. I especially remember that there was an awkward silence when I answered incorrectly in math class in elementary school. At that time, I was strongly shocked and felt ashamed, then became to be afraid of failure. So, I think my way of thinking about failure is made by my experience in school." (Hikari)

"I can most clearly remember a mathematics class in high school that had a negative effect on me. When we failed solving some problems, a mathematics teacher said to us, "I cannot understand why many students are not good at these problems. I think these are very easy in high school mathematics." I was very shocked because I felt as if he had not wanted to understand us. Because of his words, I lost the motivation to study." (Kasumi)

Experiences of encountering such critical educators who scrutinized their shortcomings not only led to diminished motivation to study for these students, but also reinforced negative beliefs about failure. Rather than their teachers being supportive and providing unconditional support, as was the case for many of the GM-oriented students above, students like Katsumi and Kaede shared instances of their teachers instead getting angry at them or their peers when they failed:

"School has most influenced my own beliefs about failure. I am afraid of failure. This feeling comes from the experience in school life. Teachers were angry with the mistakes students made, and classmates laughed at other classmates. The feeling of being afraid of failure has been developed for 12 years." (Katsumi)

"Teachers in junior high and high school said that failure is important, but they actually got angry when I failed." (Kaede)

These students' narratives reveal a discrepancy between the professed value of failure as a learning opportunity and their teachers' negative reactions to their failure experiences, leading them to come to see failures in a predominantly negative light. Lastly, a few students expressed that many of their teachers cared only about their final result or score and not their effort or personal growth throughout the learning process. As such, for these students who continued to struggle despite their efforts it was very discouraging, making them feel like they themselves were failures. As Rio and Aimi shared:

"My class teacher in the first grade of high school thought that failure was a result of lack of effort. When I had a conference with him, I was always frightened of what he would say. He asked why I did not make much effort when my test results were even a little bad. He only saw the result, not the progress." (Rio)

"When I cannot get a good grade, I feel negative. Of course, it is inevitable that I will get a low grade in a subject I didn't work very hard on, but when I study hard and get a bad grade, I feel negative …. I start to think negatively, that the teacher doesn't appreciate my efforts and is only evaluating me based on my ability. This makes me think that no matter how hard I try, I am not good enough." (Aimi)

These students' experiences highlight the demoralizing impact of teachers who solely prioritized their final grades, rather than the effort and personal growth shown. Such practices by their teachers lead to students feeling inadequate and discouraged when facing failures, instead of trying to learn from and improve from them.

In summary, the students' accounts shed light on the significant influence of the school environment and teachers on their mindset beliefs about failure. Positive teacher role models who normalized failures and emphasized growth, learning, and effort played a pivotal role in fostering a growth mindset-orientation in students. Conversely, school environments that judged students solely by their grades and not their effort or growth, as well as negative teacher responses to student setbacks contributed to the development of a fixed mindset-orientation among students.

Category #3: Friends

Growth Mindset Theme: Reframe failures as positive opportunities for learning and development

Across the data, friends were discussed as an entirely positive KIS for the participants. The students explained what their friends did when faced with setbacks or failure experiences, and how such responses came to influence their own beliefs and responses to failure. As Kanata and Chiaki shared:

"I learned from my friend that I shouldn't be afraid of failure and will continue to challenge myself. He was always looking at his ultimate goal and wasn't trapped in his immediate mistakes….I felt that I had to keep trying more than he did. His attitude of expanding his potential without fear of immediate failure was very inspiring to me." (Kanata)

"My best friend regards failure as a chance. She is not afraid of making mistakes. She saw failure as a way to grow, so she made a number of mistakes, but she was basically never discouraged. She considered not trying to be worse than making a mistake." (Chiaki)

Kanata and Chiaki shared how observing their friends' fearless approach to setbacks and their growth-oriented mindset inspired them to view failures in a more positive light. Students also shared how their friends helped them to reframe failures as valuable opportunities for learning and personal development. For instance, Setsuko and Tsuru noted:

"My best friend believes failure is not the enemy. She is a flexible thinker, so if she faces some hard problem and makes a mistake, she often says "This is a good experience". She thinks that because of failure, people will grow up to make correct decisions. She considers people should accept their failure because they are proof of challenge." (Setsuko)

"My best friends do not like failures, but they believe that making mistakes is good for our life because they know it from experience. My best friends are my cram school friends, so they failed the entrance exam once like me. However, nobody thinks it was the most terrible experience; instead, they tell me that this experience developed them, and I came to think so too." (Tsuru)

In the students' accounts, friendships played a pivotal role in reshaping their perspectives on failure. Their friends' attitudes towards setbacks served as powerful examples, demonstrating that failures were not obstacles but rather stepping stones towards growth and personal evolution. Moreover, a few students expressed their admiration for friends who were able to deal with and overcome their failure experiences by laughing them off and/or turning them into humorous stories, rather than staying disheartened or getting discouraged. As Hana and Mako shared:

"My best friend thinks that failures make for interesting stories. She thinks that since she can't change the fact that she has failed, she should just tell people about it. Having other people laugh at her failures makes her feel a little better, and she feels better about herself. Her way of thinking has saved my feelings many times." (Hana)

"My best friends always laugh failures away. No matter how serious the failure was, they encouraged me. In a similar way I encourage my friends not to care about their failure because I would like them to feel relaxed and enjoy spending time with friends. Since we think about our mistakes too much, it is precious time." (Mako)

This reframing approach of their friends not only helped alleviate the emotional weight of setbacks for them, but also contributed to a more positive and growth-oriented perspective on failures by transforming them into opportunities for storytelling and bonding as well. Lastly, some students discussed how their friend(s) provided valuable positive support in the face of their own personal failures, encouraging them to not give up and try again to achieve their goals. For example, Naomi and Misao explained:

> *"Whenever I experience failure, my best friends are really kind to listen to my feelings and cheering me up. They think that failure will make us stronger in the long run. I'm very lucky to have best friends like them." (Naomi)*

> *"My friends have mainly influenced me into thinking that failure is something positive and it's okay to fail. Whenever I tell my friends about something I failed at, they would always tell me that I worked hard and it's okay to fail. Thus, I was able to develop a growth mindset due to my current surroundings." (Misao)*

In sum, friends emerged as a positive key influential socializer regarding students' failure mindset. The examples of friends fearlessly embracing setbacks, reframing failures as learning experiences, and providing unwavering support in the face of adversity inspired the students and helped foster a growth mindset orientation.

Category #4: Japanese Society

Fixed Mindset Theme: Shame, conformity, and fear

The final KIS students mentioned was Japanese society in general. For a few students this was positive, with them discussing how characters in certain manga, anime, books, or TV shows had influenced them in viewing and overcoming failure experiences in a positive light. For example, Kasumi and Mami explained:

> *"These days, Japanese society believes that it is important to overcome failure. I feel this by watching animations and reading books…..By analyzing many animations, we can find that Japanese society is conscious of learning from failures so as not to make the same mistake again." (Kasumi)*

"My role models are the main characters of 'Asadora' (a morning drama series by NHK). Every main character faces big challenges, but they do not give up easily, keep striving and realize their dreams in the end. This makes me feel that even if I have a challenge, I can overcome it if I do not give up." (Mami)

For these students, the influence of media contributed to positively shaping their views on failure within Japanese society. By showcasing characters who persistently overcome challenges and learn from their failures, these media sources reinforced the idea in the students that setbacks can be opportunities for growth and eventual success. However, an overwhelming majority of the participants emphasized Japanese society as having a wholly negative outlook of failure in their responses, and how this had influenced their own failure beliefs. For example, Kotaro and Mami shared:

"I think Japanese society tends to regard failure as an embarrassment. In school, students do not share their ideas actively because they worry that their classmates will think you are not smart if their ideas are wrong. It can be said the same thing in adult areas." (Kotaro)

"Japanese society has a tendency not to allow failure. They regard those who haven't gone through failure as good because they believe that the fewer times someone fails, the more ability they have." (Mami)

These participants pointed out how the prevalent societal perspective in Japan was not tolerant of failure, associating it with lack of ability and focusing on how it can damage one's image in the eyes of others. This view of failure as undesirable or negative shaped students to feel ashamed, embarrassed, or fearful of their failures, rather than seeing them as a normal part of the learning process and something to use to improve oneself. As Satoshi and Hayato noted:

"Japanese society looks at failure as if it were a bad thing. For this reason, I think Japanese people often fear failure and blame those who fail." (Satoshi)

"When I compare my ideas with what I think of my family, school, friends and society, I can see that I am influenced by Japanese society. I thought that Japan's "culture of shame" has a big impact. From a very young age, I think we live in a society where we don't challenge ourselves in the first place so that we don't fail. So, failure is seen as a bad thing." (Hayato)

These students' reflections highlighted their beliefs regarding Japanese societal norms and its influence on their perceptions of failure. As Satoshi and Hayato expressed, Japanese culture's emphasis on avoiding failure, along with the tendency to associate it with shame and negative judgment, contributes to a fear of failure for people within society. A few participants explained this as Japan having overly perfectionistic tendencies. Naoko and Takashi explained:

> *"Japanese society believes we should avoid failure as much as possible. Japanese people are generally too careful to challenge." (Fumi)*

> *"Japanese regard failure as something they should not do. For example, when they speak English, they try to speak it perfectly, and as a result, they can't come to speak English. These perfectionistic tendencies of the Japanese give rise to a desire not to fail." (Takashi)*

This belief in perfectionism results in students coming to care too much about what others think of them and how their mistakes/failures are interpreted. This fear of judgement creates a fixed mindset orientation, leading them to avoid taking risks to prevent feeling embarrassed or disheartened about the possibility of making mistakes or failing. A few students contrasted Japan with other countries, explaining that much more than the West, Japanese society exerts a kind of peer pressure around social conformity, to be the same as others around them. This valuing of stability and the status quo can overpower individuals who want to challenge themselves by taking risks or standing out. For example, Chiyoko and Chiaki noted:

> *"I think that Japanese society tends to hate failure compared with foreign countries. In my opinion, Japanese people believe the most important thing is harmony, and they are very sensitive about how others see them. This notion may be caused by the nationality of Japanese, but I think it is not so good because it leads to being afraid of making mistakes. We can't develop in the current situation." (Chiyoko)*

> *"Japanese society often regards making mistakes as a bad thing. There is a peer pressure in Japan, so there is a tendency not to allow people to be out of step, which means they are not allowed to fail. This tendency strongly influences the Japanese way of thinking." (Chiaki)*

These students' reflections highlighted the impact of Japanese societal values on the perception of failure. The emphasis on harmony and conformity and avoiding mistakes in

Japanese culture creates a fear of failure that hampers personal growth and development. These insights underscore the significant role that societal norms play in shaping students' perspectives on failure. Thus, the prevailing societal perspective on failure in Japan was noted as predominantly negative, with the participants associating it with embarrassment, shame, and a fear of judgment. This perspective, rooted in the culture's perfectionistic tendencies and emphasis on conformity, hindered students from embracing failure as an essential part of learning and personal development.

Research Question #1 Summary

Within their responses across the semester students touched on three key areas pertaining to learner mindsets/meaning systems: their overarching theory of intelligence/effort beliefs, their beliefs about and responses to mistakes, and their beliefs about and responses to setbacks/failure. Which belief they held had different effects on their academic behaviors and achievement. To explain how and why they came to hold these beliefs, within each of the three areas students recounted salient lived experiences and certain key influential socializers that they felt had shaped their mindset beliefs. This differed for each area, but school, family, friends, and society were the most prevalent, in both positive and negative ways.

Research Question #2 (next chapter) will further investigate the influence that the Japanese Education System had on fostering a growth or fixed mindset in students, and what students feel is needed in school to promote more of a growth mindset in learners.

CHAPTER 5: Results (Research Question #2)

In the first research question, students shared the sociocultural influences and lived experiences that they felt had shaped their current learner mindset beliefs about intelligence/ability, effort, mistakes, and failures. The majority of students identified their educational experiences within school as a predominant key influential socializing factor that significantly influenced these beliefs. This led into research question #2, comprising two parts:

> *RQ 2.1: In what ways do Japanese university students describe the Japanese education system as fostering or hindering a growth mindset/meaning system?*
>
> *RQ 2.2: According to students, how can a growth mindset/meaning system be better fostered at school?*

Thus this second research question focused on further examining and understanding students' learner mindset/meaning system beliefs and experiences pertaining to the Japanese education system. Initially, students were asked whether they believed it fostered or hindered the development of a growth mindset in learners. Subsequently, students provided their ideas and suggestions on what was needed within the Japanese education system to further promote a growth mindset among future students.

RQ 2.1: Does the Japanese Education System Foster a Growth Mindset?

Promotes a Growth Mindset

Growth Mindset Theme: Effort leads to improvement and success

Among the participants, a small number expressed their belief that overall the Japanese education system fosters a growth mindset in learners. They explained that while students do have to take many tests throughout their schooling, they often have opportunities to learn from their results. As Asami and Masaru explained:

> *"I think the education system in Japan generally promotes a growth mindset. This is because the Japanese education and examination system is basically based on subject grades to*

determine evaluation. It seems like a result-oriented education, but the good thing is that there are many opportunities to see results. For example, before taking the entrance examinations, students take mock tests periodically. After receiving the results of each test, students study for the next test, and if they get a good score, they can feel that their efforts have been rewarded. Therefore, I think that having many experiences where one's efforts lead to results promotes a growth mindset." (Asami)

"The Japanese education system promotes a growth mindset in the long run. For example, exams in junior high school are not a single process. There are mid-term exams and end-term exams. I regarded it as an opportunity to overcome my mistake or failure. When you make mistakes in mid-term exams, you reflect on your test score and the answering process. Then you find your tendency to think and then optimize it. By using this opportunity, you can learn that mistakes are not the result, but the key to success. Therefore, I think education in Japan adopts growth mindset well." (Masaru)

These students discussed the availability of multiple opportunities to be tested on their knowledge as beneficial, since those who scored poorly on a given test could always use it as an opportunity to analyze their weak points, then shore them up by studying harder and smarter to succeed next time. Through this process of reflection and optimization, these students explained they could see their efforts rewarded as their grades improved, thus ultimately instilling in them a growth mindset. Students also noted instances of positive key influential socializers (KIS) within the system, their teachers, giving them positive praise. This motivated them to continue to work hard throughout their schooling. For example, Koji and Maho noted:

"I think that the system generally promotes a growth mindset. In my school days, I used to get praise from my teachers. They told me that I was great because I had put in so much effort. They didn't see me as great since my birth but because I could practice hard. That made me have a growth mindset." (Koji)

"I think the Japanese education system promotes a growth mindset. The teachers at my school praised me when I scored well on tests. Being praised motivated me to study harder and become smarter. I believe that when teachers praise students for their efforts, students strive to grow." (Maho)

These students noted both their teachers' positive performance praise on their results and their effort praise on their hard work as contributing to their academic motivation and fostering a growth mindset orientation in them. In addition, several students also shared that how the

Japanese education system is portrayed in certain movies, TV shows, or anime seeks to instill a growth mindset belief in its student viewers. For example, Shion explained:

> *"Non-fiction movies and dramas such as "Billigal" and "Dragon Zakura" are famous in Japan. In these, high school girls and bad guys who had only elementary school level academic ability meet good teachers and study for entrance exams aiming to enter the University of Tokyo, which is the top in Japan. After studying hard, they passed successfully. As represented by these, in Japanese education, it is believed that if you do your best, you will surely get results and you can grow." (Shion)*

According to the participants, such media echoed the values emphasized within Japanese education that consistent and diligent effort could lead to improvement and success for any student, thus fostering a growth mindset orientation.

Promotes a Fixed Mindset

However, overwhelmingly the majority of participants in their responses expressed their belief that the Japanese education system, rather than a growth mindset, actually instilled a fixed mindset-orientation in students. Responses fell into three overarching themes: the Japanese education system's emphasis on results over process, its practice of competition and constant social comparison, and how a strong focus on social conformity creates a negative learning environment.

Fixed Mindset Theme #1: Results over process

Firstly, students repeatedly stated that the major emphasis of their schooling was solely on the results they achieved, and not on the effort they put in or how much they improved during the process of learning. For instance, Midori and Yamato explained:

> *"I think Japan's education system promotes a fixed mindset. In a school, the students are usually judged by the number, such as test scores and ranks. Outcome is more important than process. So, if they can't get a good result regardless of their efforts, they may think "I don't have talent. A person who is successful has it." (Midori)*

"I believe the Japanese education system promotes a fixed mindset. This is because the majority of students are evaluated based on their studies. The effort and process of the person are not considered important; they are evaluated only by their scores." (Yamato)

These students explained how in their experience academic success revolved primarily around the scores they achieved, and largely neglected the significance of personal effort and incremental growth during the learning process. This focus on results within the Japanese education system made students feel their academic potential was limited, which contributed to instilling a fixed mindset orientation in them. Furthermore, Reina explained that even when growth mindset effort-based encouragement was used by teachers it often lacked genuine meaning and thus rang as hollow. For instance:

"I believe that the education system in Japan is trying to promote a growth mindset in the wrong direction, so it ultimately promotes a fixed mindset. I think that words like "Your effort never goes unrewarded" and "You can do it if you try" are often used in Japanese education. This is definitely a way of thinking in the growth mindset, but those who do not get results against such words even if they try hard may fall into a fixed mindset that it is impossible anyway, and will lose motivation." (Reina)

For these participants, this use of effort-based encouragement by their teachers appeared to lack genuine impact due to the prevailing (and conflicting) emphasis in school on final results. This seemed to lead students who put in their best effort but did not achieve high scores to become disillusioned and to lose confidence and motivation, eventually instilling in them a fixed mindset orientation. Additionally, Mami explained further how teachers went about praising their students also paradoxically could lead to students holding a fixed mindset:

"I think that the education system in Japan generally promotes a fixed mindset. Some teacher's casual words may promote them. They say, not "You have done it because you made great efforts!" but "You are smart! (in Japanese "Sasuga!")" when they want to praise students. This leads students to think that those who are good at doing something can do them because they are talented. This can have a bad influence on even students who are often praised. They feel the pressure that they should not make mistakes and they are worthless if they make mistakes. When they cannot achieve something, they think they cannot do it because they are not talented and give up doing it." (Mami)

Mami's insight illustrates how certain praise methods which attribute success to innate talent rather than effort can inadvertently promote a fixed mindset orientation among students. This approach could mistakenly lead students to believe that they are only valued when they excel effortlessly, creating a fear of making mistakes and discouraging resilience in the face of challenges.

Fixed Mindset Theme #2: Constant competition and social comparisons

Another practice that was commonly mentioned by the participants as greatly contributing to a fixed mindset culture was that of teachers publicly announcing and displaying all students' test scores and academic rankings throughout junior/high school. The students explained how this had a detrimental impact on their self-confidence and belief in their academic potential. For example, Asuka and Naomi shared:

> *"I think Japanese education system promotes a fixed mindset, like "I'm not a smart person innately so I won't succeed even if I make an effort." One reason is that it's apparent at school how students are smart or not. For example, at school students' test score is announced in front of their classmates in the order of their ranking. I think this system makes students who are always located in the lower ranks feel that they are bad at studying and think that students who are always in the higher ranks are genius and smart by nature. This surely promotes a fixed mindset." (Asuka)*

> *"The Japanese education system promotes the fixed mindset. It focuses mainly on test scores, including entrance exams for all kinds of school levels, which can influence the student's learning environment and experience forever. In my high school, for all midterms or finals, the teacher would put up a list on the wall that shows the top students for each subject. This can be a good motivation for some people, but it promotes a fixed mindset because it focuses on the result rather than the process. It implies that people who didn't make it on the list of top students are not as smart as the ones who did." (Naomi)*

This practice of publicly displaying test scores and rankings in Japanese schools, as described by Asuka and Naomi, seemed to reinforce a fixed mindset orientation by emphasizing outcomes over the learning process. Such practices seemed to create a sense of hierarchy among students, with those not ranking highly believing they lacked innate intelligence and ultimately

discouraging them from believing in their own potential. The participants' comments shed light on how the Japanese education system's focus on visible, quantifiable results seemed to contribute to a fixed mindset culture. Fumi's insight further illustrates this:

> *"Students who can get a good score are regarded as 'good students' and those who can't get a good grade are regarded as 'bad students' by both teachers and classmates. That is like a hierarchy in a classroom and the system can continue until graduation. 'Bad students' are likely to feel inferior, less confident and think "I can't catch up with 'good students' because originally I was not smart, and I can't change it even if I tried hard". This happens from elementary school to high school." (Fumi)*

Eri also explained how disheartening such a system can be for students who had studied hard and managed to improve their scores from last time, yet still fell short in the overall rankings:

> *"In Japan some teachers announce test scores and rankings to everyone. By doing so, a student who studied harder and got a better score than before, but when he finds out his rank and thinks that he is not as smart as everyone else, he may stop working hard. Teachers should be more evaluative of students' efforts, not just their results." (Eri)*

Thus, constant comparison and competition within the educational system can lead to the labeling of certain students as "smart" and "successful," while others may perceive themselves as "stupid" or "failing." Like Asuka, Naomi, Fumi, and Eri stated, this focus on social comparison results, rather than one's own personal growth and improvement, can have a detrimental effect on students' belief systems, particularly those students consistently ranked low despite their efforts to improve. Furthermore, this overemphasis on results over time can result in all students coming to utilize poor study strategies such as rote memorization and cramming for short-term success on tests, rather than properly studying for deep learning. As Eri explained:

> *"To announce test scores and rankings affected my academic identity for better and worse. That made me more competitive and I often got good grades, but I came to focus on only results although I know it is important to understand deeply, not just memorizing." (Eri)*

Additionally, the importance of the tests and the entrance exam for future success in Japan can also end up instilling in teachers a fixed mindset belief. For instance, Rio shared that in their

high school, students who fell short of a good score came to be treated differently by their teachers:

> *"In my high school, enrollment into a good university is thought to be the most important thing. So if students try their best in the entrance exam but they cannot succeed, teachers do not pay attention to them. Teachers only praise students who succeed in the entrance exam of a good university. Because of this situation, students think that they have to enroll in a good university by all means. It means that they come to focus more on their results rather than their processes. And if they fail in the entrance exam, they start to think that the reason they cannot succeed is that they do not have talent. In the end, they have a fixed mindset." (Rio)*

Thus, this type of system can lead to students feeling not just that they failed the test, but that *they* themselves are failures, with no talent or intelligence.

Fixed Mindset Theme #3: Social conformity pressures creates a negative learning environment

Lastly, as touched upon in research question one, students expressed that Japanese schools create a fixed mindset because of the negative learning atmosphere they create, where mistakes and failures are considered undesirable and thus come to be feared and avoided at all costs. In particular, the participants highlighted how this stems from the emphasis Japanese schools place on social conformity. As Yuzuki and Chiaki explained:

> *"I think that the education system in Japan generally promotes a fixed mindset, because Japanese schools emphasize the importance of the group. When I was in elementary and junior high school, most of our activities were done in groups. Learning outcomes were evaluated as group achievements, and teachers rarely praised individuals. Breaking group rules is immoral, so Japanese students are more likely to care about others' eyes. People with a fixed mindset tend to be afraid of making mistakes because they care about how others view them. The education system in Japan reinforces this tendency, so I think that it promotes a fixed mindset." (Yuzuki)*

> *"Japan has a culture of "reading between the lines," and students are often expected to conform to their surroundings in other classes. Therefore, I think that there is an atmosphere in the classroom where it is difficult to make mistakes, and many students are afraid of failure. (Chiaki)*

Throughout their schooling, group-oriented activities and the cultural expectation to conform contributed to an atmosphere where making mistakes is difficult and failure is feared by many students, reinforcing a fixed mindset.

In sum, the data indicated that participants predominantly believed that the Japanese education system fosters a fixed mindset rather than a growth mindset. This was attributed to the educational system's prioritization of outcomes rather than the learning process itself, the prevalence of competition and continual social comparison, and the creation of a negative learning environment stemming from an overemphasis on social conformity. Students expressed concerns that their efforts and personal growth were undervalued, with scores and rankings being the sole measures of success. Additionally, the fear of mistakes and failure, coupled with the pressure to conform, hindered students' willingness to take risks and their belief in their own abilities. The next and final section of this chapter will discuss students' suggestions and advice concerning how the education system can better foster a growth mindset in all learners.

RQ 2.2: How can a growth mindset/meaning system be better fostered at school?

In the second part of research question two, students shared their insights into what was needed to better foster a growth mindset at school. Responses fell into two general areas: student-centered suggestions and education system-centered suggestions. Student-centered suggestions focused on the importance of all students striving to attain a clear academic identity, a positive sense of purpose, and clear learning goals. Education system-centered suggestions focused on things Japanese schools need to focus more on, namely normalizing mistakes/failure, prioritizing the process/effort and individual growth (over social comparison/results), and promoting more holistic learning.

Student-Centered Suggestions

1.) Having a clear academic identity/positive sense of purpose

From their semester reflections and interview responses, one key theme mentioned to foster a growth mindset orientation was the importance of having a clear academic identity and positive sense of purpose. Having clarity regarding what they wanted to study and why was posited as playing a key role in influencing students' motivation, beliefs about effort, and responses to mistakes and failures throughout the learning process. As Kasumi and Naomi shared:

> *"My belief regarding studying is enjoying studying itself. These days, some adults tell children that studying hard is important because this leads them to have a great time in the future. They often say to children, "If you study hard when you are students, you will be able to enter a prestige university and get a great job." However, I believe that knowing what I did not know until yesterday is very enjoyable and enjoy doing what I could not do until yesterday. I want to continue studying not only to get fame but also to enjoy the moment." (Kasumi)*

> *"I feel very lucky that I'm in university because it is considered as my "job" to focus on learning every day. Although I believe you should never stop learning no matter what age you are, it is difficult to make time to learn once you start working. I want to learn many things and acquire many skills while I'm a student." (Naomi)*

For these students, studying was not just a means to an end but a source of ongoing enjoyment and personal enrichment. However, an important caveat of this was to not just focus on things one was good at academically, but to ensure that it was actually something one enjoyed. As Moe explained:

> *"Try to find something that you're passionate about, interested about. It doesn't necessarily have to be something that you find easy or comes naturally to you. Because I find a lot of people, they find something that they're good at, but not necessarily interested in, and they keep on pursuing that. There's nothing wrong with that but I find as far as motivation is concerned, finding your interest is most important." (Moe)*

Having a sense of appreciation for the opportunity to learn things that truly interested them as their full time "job" was thus cited as a driving motivation for a number of the participants. For instance, Aimi and Eiko noted:

"My main purpose in university is to enrich my life. I believe that by learning about different ways of thinking and the world at university, I will be able to live my life freely in the future. In fact, learning at university expanded my world. To be able to not just live, but to live abundantly, that is my goal in my university life." (Aimi)

"[My academic purpose is] to acquire broad and deep knowledge, especially in the field of psychology. By having various experiences and being exposed to different values, I want to widen my perspective and grow as a person." (Eiko)

These students' positive attitudes towards learning emphasized the acquisition of knowledge, expanding their worldview, and personal growth. Their genuine love for learning cultivated a growth mindset, where their focus was on personal development rather than solely on grades or scores. In addition to an overall love of learning, students also expressed the importance of clarifying early on their specific purpose—what they want to learn in school and how they hoped to use it in the future. As Fumi and Kasumi explained:

"I have a strong willingness to learn. I can tell you what my purpose of learning in university is and why I set it to my purpose. Also, I have many things I want to study. What I want to learn is clear." (Fumi)

"I feel that I have a strong academic identity. This is because I want to make Japanese childhood education better and I like knowing what I did not know until yesterday. Of course, I sometimes hate studying because I have much homework although I have no time! However, even if I feel like this, my belief and dream support and inspire me." (Kasumi)

Having a clear sense of purpose and an interest in something not only gave their studies deeper meaning but also served as a source of motivation and resilience, better enabling them to persist in their learning, even in the face of challenges.

Conversely, students who expressed a lack of clarity in their academic sense of purpose tended to be more fixed mindset-oriented and shared their struggles to find meaning in their studies. Such students also reported less motivation and resilience. For instance:

"I don't have a clear academic identity. I don't have a clear goal for the future, I don't know what to do and I feel I can't devote myself seriously to anything." (Eiko)

"My desire to learn is weak because I have no dreams." (Asuka)

"I don't have my dream. Therefore I am not motivated to study…" (Kazue)

These and other participants' struggles seemed to be attributed to the absence of overarching goals or aspirations beyond immediate academic achievements, leaving them without a source of motivation or support to fall back on during challenging times. This lack of purpose ultimately undermines motivation and impedes the development of a growth mindset, particularly in terms of embracing effort, learning from mistakes, and overcoming setbacks. A couple students, such as Akira and Tsuru, explained the struggle of finding one's purpose, moving from the rigid structure of high school and always being told what to do to the freedom and uncertainty of university life:

> *"I have a feeling that I'm really looking for my life at university, but on the other hand, I also have a negative feeling, which means what I should do in the university. Until high school, I just did what I was given but here, university, I have to find what I want to do only by myself." (Akira)*

> *"In university, we can decide what we learn ourselves. It is very interesting for me, because I decided what I want to learn, for example, education and developing assistance. But some people, including my friends, have difficulty to find the fields they want to study…." (Tsuru)*

During their junior and high school years, the primary focus is often on preparing for the university entrance exam, leaving little room for students to explore their personal interests, goals, and passions. Thus, while university education offers students the opportunity to exercise autonomy in choosing their areas of study, some students have not yet had the chance to develop concrete goals and purpose and are not prepared for this sudden change from structure to freedom, feeling lost rather than empowered.

2.) Pursuing Clear Learning Goals

Related to having a clear overall academic sense of purpose, another key theme students discussed to foster a growth mindset was the importance of having specific learning goals. Several different reasons were cited. Firstly, the participants stated that having clear goals allowed them to track their progress and current ability towards their desired outcome. This

enabled them to have a better understanding of both their strengths and weaknesses, what areas they needed to continue to work on as well as next steps to take to be successful. For instance, Hikari and Megumi explained:

> *"When students set goals, they are required to understand both their good points and weak points. Then, they can clearly understand what is missing to achieve their goals and improve their approach. Also, they can perform tasks to tackle each activity easily with some goals because they always show the way to do the activity and become motivated to do it." (Hikari)*

> *"Knowing the direction to advance is important. When we have targets to reach, we are more likely to work harder. Without goals, we might feel confused about our purpose. Only when we understand what we are doing and the targets we are achieving can we make the effort. The road without clear direction might lead us nowhere." (Megumi)*

Without clear goals, students acknowledged the potential for confusion and a lack of motivation, emphasizing the significance of goal-setting in driving effort and ensuring meaningful progress. Furthermore, students noted that having specific, concrete goals also provided them with the motivation necessary to keep making effort and working hard. As Yuzuki and Maho shared:

> *"It is very important for students to set their goals to succeed, because if they set goals, they can try to work harder in order to achieve these goals. Students who have goals are able to stay motivated to work hard because they can find a clear idea of what they need to do. On the other hand, students who don't have any goals don't know what it means to work hard, so they are not able to work as hard. Goal-setting is very important for success, because it makes it clear what it means to work hard and keeps us motivated." (Yuzuki)*

> *"I think it is very important to set goals to be a successful student. To be successful, we need a lot of effort, but I think we can't make efforts without goals and achieving goals promotes our efforts. I can know what I need to do to succeed and vague success becomes concrete by setting goals." (Maho)*

In essence, the act of setting goals was regarded as an essential catalyst for promoting consistent effort—a foundational element of a growth mindset orientation—and maintaining the motivation necessary for attaining academic success. Some students also detailed the importance of accomplishing goals to feel a sense of achievement, which resulted in further motivation, fostering a positive cycle of success. As Shion and Mami explained:

"If you set your own goals, you can actively work on them, so you can maintain your motivation until the end. And once you experience a great sense of accomplishment, you will want to get the same sense of accomplishment next time. I think this creates a good cycle for students to grow." (Shion)

"If I set a goal, I try to work hard thinking about what I need to accomplish and can make a great effort to work. Also, if we set both large and small goals, we can work on things effectively and efficiently. We can do things with purpose. I can feel a sense of accomplishment when I set small goals." (Mami)

Rather than being just focused on the results, these small successes throughout the learning process enabled students to focus more on growth and incremental development, illustrating the transformative power of goal accomplishment in fostering a growth mindset. In addition to motivation, for some students like Mariko their goals were their reason for continued perseverance in the face of adversity and setbacks/failures:

"By setting goals, we can clarify what we need to do now. Then we can work hard every day to achieve our goals. Even if we feel like we are going to fail, having a goal gives us a reason to keep trying. It is important to set clear goals in order to be successful." (Mariko)

Lastly, a few students shared how having clear learning goals led to them focusing more on the learning process, which enabled them to enjoy studying for its own sake. Thanks to this, they did not compare themselves as much to their peers, since they were on their own journey and had their own intrinsic motivation to propel them forward. For example, Reina explained:

"I want to get better in the areas I care about. I enjoy working hard to get a good reputation in my own mind. Studying is a goal in itself. I enjoy studying the fields I am interested in, so I can study without worrying about what others think of me. I am motivated to make a proper plan and do it on my own. I also enjoy getting closer to achieving my goals, so I rarely lose motivation." (Reina)

Reina's perspective highlights a growth mindset, where her intrinsic motivation to improve and her passion for learning reflect a genuine love for the process of self-development. This internal drive enables her to set and pursue her goals diligently, unaffected by external opinions, and consistently maintain her motivation.

Instructor-Centered Suggestions

1) Normalize mistakes/failures and acknowledge student differences

Within this category students' comments focused on the importance of schools and instructors promoting a more positive learning environment. Above all else and as touched upon in research question #1, participants stated that it was necessary to normalize mistakes/failure throughout the learning process, especially in the early grades of schooling. For example, Eiko and Hikari noted:

> *"From an early age, people should be taught that failure is not a bad thing and that it is more important to learn and grow from your mistakes than not to make them. I think many Japanese people tend to be concerned about others' evaluation of them, so they are likely to avoid challenging themselves for fear of failure. First of all, we should change this way of thinking." (Eiko)*

> *"I think changing the atmosphere of classes is effective to change the style of Japanese education and promote a growth mindset. I often feel ashamed when I make mistakes in classes. I think that can make students have a fixed mindset. However, there are some classes that I don't feel this way. In such classes, neither the teachers nor the students mind the students' mistakes, and even think they are useful to deepen students' understanding. I think it is because of the atmosphere of the class where people in the class learn together. The atmosphere of the class that doesn't mind students' failure can change students' fixed mindsets." (Hikari)*

Participants emphasized the importance of changing the perception of failure in Japanese society, suggesting that education should focus on learning and growth rather than the fear of making mistakes. Some students like Hikari also touched upon the significant role that classroom atmosphere plays in promoting a growth mindset, indicating that creating a supportive and collaborative learning environment can help students overcome the fear of failure and embrace challenges as opportunities for growth. Related to this, a number of participants expounded that the Japanese school environment especially needs to break away from its tendency of social conformity, to enable students to feel confident expressing their own ideas and opinions, rather

than always be worried about what others think of them or what they “should” think, say, or do. As Tsuru and Misao explained:

> *“The needed thing is to let students not hesitate to say something in public (in classes, in meetings) or not avoid making a mistake. Japanese people are shy and afraid of making mistakes because they don't want to be embarrassed and trouble other people with their problems. However, these tendencies may cause a fixed mindset, because avoiding mistakes doesn't develop us and if we think they don't change they think their cause is not to have a special talent. There are big obstacles. It is that people tend to go along with people. They want to do the same things as others and not attract attention too much from other people. This tendency has to be changed.” (Tsuru)*

> *“I think that the Japanese thinking“出る杭は打たれる” (the nail that sticks out gets hammered down) is one major reason why it is hard for Japanese society to have a growth mindset. This is because society avoids standing out in fear of being alienated from the crowd. That is why most Japanese students refrain themselves from standing out, such as by asking questions or sitting in front. I think if future generations are not taught this thinking, there may be a shift in society, leading to more Japanese people having a growth mentality.” (Misao)*

The participants expressed their belief in the need for a cultural shift within Japan and its education system, discerning that the traditional Japanese adage, "the nail that sticks out gets hammered down," dissuades individuality and inquisitiveness and thus acts as a barrier to fostering a growth mindset. By challenging this paradigm as well as fostering an environment where individuals are encouraged to speak up, make mistakes, and overall not fear embarrassment, Japan education could cultivate more of a growth mindset in students. Towards this end, it was suggested that instructors need to create an environment that allows for a diversity of opinions in their students. As Rei and Yumiko stated:

> *“To create a culture that does not laugh at failure and sees it as normal is needed to promote growth mindsets in school and also society in general. There is an atmosphere of embarrassment about making mistakes in school, and it is not good because students think they are not smart. However, failure is important to growth, so we have to create the tendency not to laugh or care about others’ failure.” (Rei)*

> *“People need to be more tolerant of those around them who have made mistakes. In order to achieve this, I think we need a foundation for education that allows for more diversity and*

where free thinking and action are valued. I think the barrier is the idea that prevails in Japan of standardization and the elimination of anything that is out of the ordinary." (Yumiko)

They highlighted the importance of creating a supportive and non-judgmental environment in schools, where they can state their beliefs and reasoning freely without fear of being seen as strange or ridiculed by their teachers or peers for thinking differently than the norm. Some participants expressed that one way to help accomplish this is for teachers to take the lead in normalizing mistakes/failures by first sharing with their students their own failure experiences and how they overcame them. For example, Akira and Hana noted:

"I think that there should be an environment that allows people to make mistakes. At school, teachers should talk about mistakes (from trivial things to serious things) that they have made before and what they learned from them actively to tell students anyone can make mistakes and this is not embarrassing because this helps us grow up." (Mami)

"In order to further enhance Japan's growth mindset, I think it is necessary to provide education that does not have to be afraid of failure. To do this, teachers themselves can show their students that they are making mistakes, and talk about how they learned to do things that they couldn't do in the past. Children and young people will actively challenge themselves if they know that failure is normal." (Hana)

Rather than being seen as a perfect exemplar, if teachers show that they too are human and have made mistakes in the pursuit of their goals, it may help to reduce students' perfectionistic tendencies and help alleviate the fear of failure among students, eventually fostering resilience and a growth mindset orientation.

2) Prioritize the process/effort and individual growth (over social comparison/results)

In their responses, many students also commented on the necessity of the Japanese education system to stop evaluating and ranking students so much throughout their schooling experiences. For example, Asuka and Naomi explained:

"I strongly agree that promoting growth mindset in school is needed in Japan, because those who believe intelligence or skill can be developed through effort can succeed much more. However, there is the Japanese education system where test scores are everything and I think

this surely makes a fixed mind. Judging students only by test score prevents students from promoting growth mindset." (Asuka)

"The biggest factor that promotes fixed mindset in Japanese education are the tests and the exams. I wish that there is a good way to measure student's efforts without using tests or exams to compare with other students…." (Naomi)

The students explained that in the midst of this constant cycle of test scores and grades, where all that comes to matter is the end result, it is often inevitable not to shift towards a fixed mindset view. As such, an alternate method of measuring students' growth and success is needed. Furthermore, participants such as Satoshi and Yamato also emphasized that constant social comparisons and competition with their peers fosters a fixed mindset orientation and how this too needs to change:

"I think we should create a culture of not comparing ourselves to others. In general, when we compare ourselves to others, we often feel inferior. This will hinder the growth mindset. In order to avoid comparisons, we need to understand and develop each person's individuality." (Satoshi)

"I do not believe that growth mindset will be promoted as long as we remain a competitive society. I believe that growth mindset will be promoted when we respect initiative and student characteristics." (Yamato)

The participants expressed that while a culture of constant comparison to others often leads to feelings of inferiority and fosters a fixed mindset, that instead respecting individuality and initiative are more conducive to the development of a growth mindset orientation. Towards this end, a few students laid out how the Japanese education system should more strongly emphasize the process of learning and students' efforts and incremental improvement. For instance, Tasuku succinctly noted:

"In my opinion, a system that evaluates the processes of study and work is needed more to promote a growth mindset. The aim of Japanese education is that everyone achieves certain standards, and Japanese people tend to value results only. I think this situation prevents people from having a growth mindset. Therefore, it is important to value not only results but also processes. Individual abilities are different, and the amount of effort that is necessary for achieving certain standards is various. If those who make an effort were not evaluated, they would lose their motivation and have a fixed mindset. On the other hand, if they experienced

that their effort was helpful, they would realize that they can change their abilities. Therefore, a system that evaluates the processes of study and work more is needed to promote a growth mindset." (Tasuku)

Thus rather than comparing and critiquing students to one another throughout their educational experience, participants instead endorsed that schools/teachers should switch the emphasis to have students mainly compare themselves to their past selves. As Mizuki posited:

"I think the reason we tend to have a fixed mindset is to compare ourselves with others. In the Japanese school and society, of course there are differences in terms of knowledge, ability, sense, personality and so on. People who tend to have a fixed mindset give up improving themselves before trying because they believe that people who are good at some things are special since they were born and we cannot become like them. In order to break these obstacles, I think of making an education curriculum which focuses on individual improvement. If people compare themselves with others, they may lose their motivation to improve themselves, but if they compare themselves with themselves before, they can see clear progress and keep trying hard. So, individual improvement is needed to promote a more growth mindset in Japan." (Mizuki)

As Mizuki's response expressed, shifting the focus of schooling from external comparisons to individual growth and progress can enable students to develop confidence in their own abilities. Thus, teachers recognizing students' efforts and praising their incremental growth can also help them to realize their potential and foster a growth mindset belief in their ability to improve. As such, the kind of praise teachers give students plays a key role. Rather than just praising good results at school, participants stated that teachers need to focus more on providing effort praise regarding their perseverance throughout their learning process as they struggle to improve themselves. As Tamaki and Takuya noted:

"The praise of effort is needed to promote growth mindset more in Japan. If we are praised for our effort, we can continue our effort and try new things whether we succeed or not. However, in Japan people are praised not for their effort but for their successful achievements." (Tamaki)

"It is of course important to praise children for any successful events. But what is even more necessary is to praise the process of success. Not many of us want to be praised because we got good grades, because we got a good result. Rather, we want them to praise us because we

have practiced and studied over and over again until we succeeded. We want them to praise us for not giving up." (Takuya)

It may not always be possible for students to achieve the results they desire. Therefore it is for such times that establishing a culture of praising effort is essential, as a means to maintaining students' motivation to persevere and strive for improvement rather than getting disheartened or giving up. As Reina explained:

"I think teachers or parents in Japan should praise students or children not for their result but for their process. Most adults stick to good scores, and it affects children's motivation about everything badly. There is the case that they make efforts, but the result is not good. If their try is not accepted, it is difficult for them to keep motivation high. 'The most valuable thing is your trying and its process.' This idea is needed to promote a growth mindset in Japan." (Reina)

However, praise alone is not sufficient – students such as Asuka and Chiaki stated that teachers in Japan also need to provide better support and follow-up when they make mistakes or fail:

"If students fail, the teacher can look at the process, find out what caused the failure, and show suggestions for improvement, thereby preventing a loss of confidence caused by looking only at the results." (Asuka)

"To promote the growth mindset more in Japan, from elementary school and kindergarten schools need to strengthen their follow-up with students who make mistakes, not only praising those who get it right. I feel that they are often praised for their successes, but when they fail, they are not followed up much with "make sure you can do it". Therefore, more follow-up on failures will likely reduce students' resistance to failure." (Chiaki)

The reflections from these students illustrated the need of teachers not to just give positive praise for successes or superficial encouragement for failures, but instead to provide clear and concrete constructive feedback, to ensure they are equipped with the necessary strategies to identify and improve their weak points, in order to actually learn from and utilize them for improvement and future success. A final component a few students mentioned is that it is important for students early on to experience successes due to their efforts, to help them realize

their abilities are not fixed and to enable them to gain confidence in themselves. As Hideko noted:

> *"I think that a lot of successful experiences are needed to promote a growth mindset more in Japan. A successful experience is the experience of being able to achieve a goal as a result of striving towards it. By experiencing many successful experiences, I gain self-confidence and are able to work towards new goals. Even if I fail, it is important to keep trying until I succeed." (Hideko)*

3) Need for more holistic learning

The final theme was the participants' desire for more holistic learning. This comprised several suggestions, regarding what and how they learned during their schooling as well as their learning environment. Firstly, some participants expressed the importance of explicitly teaching about fixed and growth mindsets to students during their education. For example, Aki and Misao shared:

> *"I wish I had learned fixed mindset and growth mindset. Because when I entered [X] University and joined my classes, other students knew a lot about many things that I didn't know. And there are many students that have been to overseas countries. And they talked English fluently and in the discussion they expressed their opinions more academically and logically. At the time I thought students in [X] University were genius and I was not a genius. And I was so nervous and shocked and embarrassed about my intelligence. If I had learned that if I made effort and developed myself, I could have been more positive about learning new things in the university and I would have set learning goals that I learned in my classes." (Aki)*

> *"I actually never heard about fixed and growth mindset before this class. However, learning about both of these mindsets changed my perspective about effort and life, in general. I think I was more inclined towards a fixed mindset before but after taking all the lessons in this topic, I tried to incorporate more growth mindset in my life and having this mindset helped me in overcoming setbacks." (Misao)*

These students expressed their regrets about not having learned about learner mindsets earlier, emphasizing how this knowledge could have positively impacted their self-perception and approach to challenges in higher education. Aki discussed having a fixed mindset orientation upon entering university, and how her negative social comparisons with her peers made her feel

she was not "naturally" as smart as them, which ultimately limited the amount of effort she put into her studies and the types of goals she set. For Misao, her newfound understanding of mindsets made her realize her fixed mindset tendencies. This realization and knowledge enabled her to shift her perspective and empowered her to adopt a more growth-oriented approach to life and effort to overcome her life setbacks. Particularly, the participants discussed the importance of teaching students about growth and fixed mindsets while they were still young and most impressionable. As Akira and Moe explained:

> *"I think one important thing is to teach children that intelligence can be improved, not fixed since they were born. People with a fixed mindset readily accept there is a difference between genius and them and don't try to close the gap between them. Because if they don't admit genius, they have to accept the reality that they don't make an effort. To remove this, we have to know intelligence can be improved." (Akira)*

> *"From what I know of psychology, it seems that when we are young, people are far more easily influenced and their fundamental way of thinking and values are formed in this period. In this case, teaching children that if they work hard, they can accomplish anything and overall encourage a more positive way of thinking would be effective in promoting growth mindsets." (Moe)*

These students highlighted the significance of early education regarding learner mindsets and the instilling of a growth-oriented perspective as a foundational aspect of young students' academic development. Teaching students from a young age to embrace growth mindset beliefs that value effort and resilience over fixed notions of intelligence can foster a positive way of thinking, enabling students to develop a belief in themselves to work hard to accomplish their goals. However, in order to effectively foster a growth mindset, students expressed it is vital that teachers themselves hold a growth mindset *and* that it shows in their words and actions. As Kenji and Mamori expressed:

> *"In order to promote the growth mindset, it is necessary to increase the number of competent leaders. For example, schools need teachers with a growth mindset. If they say to their students, 'You didn't try hard enough', that is an obstacle. If more teachers can say to their*

students, 'You can do it', then the students will have a growth mindset. So it is important to increase the number of good teachers." (Kenji)

"I think it is essential to reform the awareness of teachers in order to promote a growth mindset in schools. One example is the response when a student makes a mistake in a question. It is very easy to point out mistakes in a test, but it leads to a lack of motivation in students and a missed opportunity for growth. I think it is important to teach students the correct way to solve a problem when they make a mistake, and to let them experience that they have solved the problem. By doing so, I think we can make them less likely to give up or get depressed because they are not talented. I think that being able to do things that you couldn't do before is a great chance to promote a growth mindset." (Mamori)

Thus teachers must both be knowledgeable about and live a growth mindset themselves before they can effectively pass it on to others. By following its tenets, educators can inspire students to believe in their potential while being mindful of their language to avoid reinforcing fixed mindset beliefs. Increasing the number of competent teachers who embody a growth mindset is thus crucial in fostering a positive learning environment that supports students' development of a growth mindset. Related to this, Yumiko mentioned that teachers should also be passionate lifelong learners themselves in order to pass on this trait to their students:

"I think teachers who have a desire to improve themselves are ideal teachers and to stop studying makes a bad teacher. A teacher with ambition gives interactive lectures and incorporates students' opinions. I think the quest for knowledge has no end, so teachers should display a learning attitude to students." (Yumiko)

Yumiko's comment touched on the significance of educators not only imparting knowledge but also being committed to their own continuous improvement. Such teachers could serve as role models for students, further fostering growth mindset beliefs and instilling in them the value of lifelong learning and foster a positive attitude towards acquiring knowledge.

Another aspect some students touched on in their reflection responses was concerning their learning environment. Particularly the need for class sizes at school to be smaller than they currently are, to enable teachers to better get to know their students and provide the differentiated

feedback and customized support they need to learn from mistakes/failures and develop and improve. As Aimi succinctly explained:

> *"What students experience in school can have a profound impact on their values and mindset. First of all, it is difficult to teach each student the idea that anyone can become smarter if they study. Japanese schools generally have a large number of students per class, about 40 students per class. In such a situation, there is not enough room for teachers to keep up with the growth of each student. As a result, teachers choose to promote a fixed mindset rather than a growth mindset. So, in order to promote a growth mindset in Japanese schools, I think the first step is to organize them into smaller classes. In small classes, the teacher can stay with each student until he or she becomes smart. If the teacher takes the time and effort to teach the students, the students will have a growth mindset, realizing that they can become smart if they just try." (Aimi)*

As noted, large class sizes are commonly used in Japan, and within such classes it can be extremely challenging, even impossible, for teachers to properly get to know each learner and effectively cater to their individual needs and growth. Improving the teacher-student ratio in each class can enable teachers to dedicate more time and effort to each student's learning journey and foster their growth mindset. Smaller class sizes can also help facilitate teaching that caters to the individuality and unique strengths of each student, rather than focusing just on standardized measures such as students' intelligence based on scores and grades. As Aoi shared:

> *"The Japanese education system aims to get good grades in all subjects, go to a good university, and get a job. In addition, while many families spend a lot of money and effort on education, such as attending cram schools and private schools from an early age, some children do not receive sufficient education. I think this system and social awareness encourage Japanese children to have a fixed mindset. I feel that the idea that intelligence is more important than the individuality of each child is the basis of children and some children have a feeling of inferiority and grow up thinking that whatever they do is useless." (Aoi)*

As discussed throughout these two research questions, participants pointed to how the current emphasis on grades and the societal pressure that accompanies it can contribute to a fixed mindset among Japanese children. By spending more time and effort recognizing and nurturing the unique strengths and talents of each child, students such as Aoi stated that schools can better promote a growth mindset, preventing feelings of inferiority from social comparisons and instead

enabling/empowering students to develop confidence in their own unique abilities. Lastly, several students expressed that to really foster a growth mindset in all students it is necessary for things other than just test scores to be valued within the education system. For instance, Maho and Miku posited:

> *"I believe that there should be more points of evaluation in schools to promote a more growth mindset in Japan. I think that the Japanese education system undervalues extracurricular activities. Students who are good at studying can be motivated by getting high marks from adults on tests and grades, but students who are not good at studying cannot. It is important for students who are not good at studying to appreciate and recognize other things they are good at. For example, valuing participation in research projects, sports, and volunteer activities will encourage students to devote their full attention to what they are interested in." (Maho)*

> *"People who achieve excellent results within the scope prescribed by society tend to be evaluated positively, but I think there should be more opportunities to be evaluated in various ways. If we develop our own personality and it is appreciated, we will gain self-confidence and be willing to take on new challenges." (Miku)*

For these participants the current emphasis on the test scores and grades of a few specific content areas overlooked the potential of students who excel in other areas of their schooling. By valuing extracurricular activities, research projects, sports, and volunteer work, students who struggle in traditional core academic classes can still discover and be appreciated for other unique talents they possess. Learner mindset orientations do not apply just to studying, but to all facets of life, so this educational approach can help foster a growth mindset in such students, leading to increased self-confidence and a willingness to embrace new challenges. Creating diverse evaluation opportunities and overcoming societal pressures for conformity empowers all students to develop their individuality and pursue their own individual passions.

Research Question #2 Summary

To summarize, in their responses to research question #2 the participants provided valuable insights into fostering a growth mindset at school, with a focus on two main areas:

student-centered and instructor-centered suggestions. In the student-centered category, they emphasized the significance of students developing a clear academic identity, a positive sense of purpose, and specific learning goals. These elements were identified as essential in motivating students, helping them track their progress, and shifting their focus towards the learning process and personal growth rather than just academic outcomes.

The suggestions from the participants regarding instructors revolved around three key themes. Firstly, they highlighted the importance of normalizing mistakes and failures, creating a positive learning environment that fosters growth through learning from errors. Secondly, they recommended moving away from excessive social comparison and test score-based ranking, advocating for greater emphasis on individual effort and personal development. Lastly, they emphasized holistic learning, including early education on mindsets, teachers as growth mindset role models, smaller class sizes for personalized attention, and recognition of a broader range of student talents and accomplishments beyond academics. These reflections serve as a valuable foundation for reforming education in Japan, ultimately benefitting both individual students and society as a whole. The next chapter discusses the findings in relationship to the existing literature.

CHAPTER 6: Discussion

In this chapter, I summarize and discuss the findings of this study. The below sections discuss each of the two research questions respectively.

Research Question 1.1: Japanese University Students' Learner Mindsets/Meaning Systems Manifestations

The first part of research question #1 addressed Japanese university students' learner mindset/meaning system manifestations. The goal of this research question was to discover if data drawn from the cultural context of Japan was consistent with the existing body of learner mindset research conducted in WEIRD populations (i.e., Western countries such as the U.S.).

> *RQ 1.1: What aspects of learner mindsets/meaning systems do Japanese university students demonstrate regarding their beliefs and behaviors to academic challenges and setbacks?*

Across the data the participants' responses manifested in a range of learner mindset orientations, with growth and fixed mindset-oriented students demonstrating divergent beliefs regarding intelligence and effort, as well as different responses to educational challenges, mistakes, and failures. This impacted their attitudes, motivation, and actions within the learning process. This is line with the extensive learner mindset literature which has shown that the learner mindset meaning system a student predominantly holds can significantly impact their learning behaviors and academic achievement (e.g., Burnette et al., 2013; Dweck, 2006, 2017; Haimovitz & Dweck, 2017; Murphy & Gash, 2020; Yeager et al., 2019). The data is organized into three overarching categories: students' intelligence and effort beliefs/practices, their beliefs about and responses to mistakes, and their beliefs about and responses to failures.

Students' Intelligence & Effort Beliefs/Practices

This first category pertained to students' perceptions and beliefs about intelligence/ability and the value of effort for success, which research has demonstrated has the potential to exert a significant influence on students' motivation and learning-related behaviors (e.g., Dweck 2006, 2017; Dweck et al., 2014). This is because such beliefs can result in variations in academic achievement due to the different meaning systems they establish, which impact students' cognitive, emotional, and behavioral responses throughout their educational journey (e.g., Lou & Noels, 2019; Yeager & Dweck, 2020). The study findings demonstrated that the participants who predominantly held a growth mindset orientation towards learning regarded their intelligence and capabilities not as inherently fixed, but as something that could always be improved through sustained effort and ongoing learning.

This belief played an important role in maintaining their academic motivation. Since these students felt improvement was always possible, it empowered them to work hard and strive to develop themselves. In their reflection responses this took the form of them putting in more practice time, seeking out more effective learning strategies, and reaching out to more knowledgeable others for support, all of which enabled them to persist with their studies over time. Thus their focus was on increasing their current ability and self-improvement rather than ruminating on their (perceived) shortcomings. Consistently putting in effort and accomplishing difficult tasks built in them a reservoir of positive experiences, providing them with self-confidence that emboldened them to tackle difficult future challenges. For these GM-oriented participants, effort and grit were often cited as more important factors for academic success than "natural" intelligence. While some did acknowledge their belief in the existence of "geniuses" and the utility of natural intelligence or talent for achieving academic success, they still

emphasized that continually developing oneself through the application of effort was the most important factor to academic success.

Conversely, FM-orientated participants expressed deep-seated beliefs that the intelligence or ability a person possessed was largely innate and genetic in nature. In their responses, these students talked about IQ scores, natural "genius", and how smart parents usually had smart children. A consequence of this was that they tended to believe that effort could not significantly change one's potential for success, and thus predominantly attributed their own academic successes and failures to their natural traits (or lack thereof), rather than to effort or learning strategies. This aligns with prior research in which fixed mindset students viewed the need for effort as an indicator of one's low intelligence/ability and thus a largely unnecessary component of success if one is smart (e.g., Blackwell et al., 2007; Dweck et al., 2014; Lou & Noels, 2016). As such, they attribute their successes and struggles predominantly to their innate intelligence/ability (e.g., Deiner & Dweck, 1980; Dweck, 1999; Smiley et al., 2016; Yeager & Dweck, 2020). However, one from the literature for the Japanese participants was that they did not once discuss effort as a sign of inherent incapability, or something wholly negative or ineffective. Rather, their responses focused on their perception that natural intelligence always trumped effort, and that there was a limit to how far hard work could carry you if you did not have "it".

The students' intelligence and effort beliefs also influenced how they felt about and responded to academic challenges. Since the GM-oriented participants regarded effort as positive and essential for learning, they consistently displayed a proclivity for embracing challenges. In their reflections, many of them shared that they did not perceive themselves initially as being naturally smart or talented within their academic endeavors, but that their dedication and hard

work led to visible growth and academic success. This bolstered their confidence to take on subsequent challenging tasks, resulting in a positive feedback loop (Boardman, 2021; Limeri et al., 2020), where their efforts led to self-improvement, success, and greater self-efficacy, spurring the undertaking of future challenges. This aligns with the existing research, which states that growth mindset students commonly engage in and derive satisfaction from tasks that present challenges, since they view these as an essential element of personal development and success (e.g., Blackwell et al., 2007; Dweck, 2006, 2017; Yeager & Dweck, 2020). As such, GM-oriented students tend to primarily focus on mastery goals of learning.

The fixed mindset participants' responses were also consistent with the existing literature, which explains that such students are frequently concerned about their level of intelligence or ability in comparison with others. This can result in a preoccupation with either performance goals, which involve proving their competence to themselves and others through impressive achievements (e.g., high test scores, grades, etc.), or avoidance goals, where the focus is on avoiding or withdrawing from situations and tasks that they lack confidence in for fear of looking incompetent or feeling embarrassed (e.g., Dweck, 2006, 2017; Dweck & Yeager, 2019; Hong et al., 1999; Nussbaum & Dweck, 2008). Interestingly, while a few students within the data did mention their competitive nature and wanting to show their superiority through performance goals, the overwhelming majority of the fixed mindset participants' responses pertained to the avoidance goal of making mistakes and feeling embarrassed in front of others. For them, since their intelligence/ability levels were largely fixed, any setbacks were perceived as a blow to their identity and incurring a loss of status and respect in the eyes of their peers and teachers. This preoccupation with avoidance goals often resulted in heightened anxiety when confronted with challenging situations, especially public ones, driven by their fear of mistakes or criticism. Over

time such behaviors can detract students from meaningful learning, negatively impacting their academic outcomes (e.g., Dweck, 2006, 2017; Robin & Pals, 2002).

Students' Beliefs About and Responses to Mistakes and Setbacks

Learner mindset research has also demonstrated that growth and fixed mindset-oriented students view and respond to mistakes differently (e.g., Cury et al., 2006; Heine et al., 2001; Hong et al., 1999; Limeri et al., 2020), and this proved to be the case with the Japanese participants as well. While none of the GM-oriented students particularly enjoyed making mistakes, across the data they predominantly expressed a positive view that making them was a normal and necessary aspect of learning and that they were stepping stones to success. This stemmed from their inherent belief that their intelligence/ability could always be improved. As such, these participants tended to express an understanding that a negative performance or result on an assignment or exam was not an indictment of their lifelong ability, but rather just a snapshot of where they were at currently in one particular context (Dweck, 1999). Thus, mistakes made during the learning process were explained as necessary to help them identify and reflect on current areas of weakness and to strategize more effective learning strategies, while also enabling them to avoid making similar mistakes in future endeavors. This matches prior studies that have demonstrated that growth mindset students tend to see mistakes as valuable chances for learning, providing them with information and insights to enhance their performance. As a result, such students tend to be more resilient to setbacks and exhibit higher levels of motivation and perseverance when confronted with challenging academic tasks (e.g., Dweck, 2006, 2017; Hong et al., 1999; Robins & Pals, 2002).

Making mistakes during their educational journey was also seen as valuable experiences for normalizing them, which prevented students from holding misguided expectations that

success was an effortless and mistake-free process. While some students disclosed that they felt embarrassed or disappointed in themselves when they made mistakes and wanted to avoid them when possible, they also emphasized the import of developing fearlessness towards making mistakes in the face of new challenges for academic success. As Yeager and colleagues (2016) explained, when students see their academic journey as one that they can actively influence regardless of their starting position, their motivation and resilience in the face of challenges and setbacks increases. Thus for growth mindset learners, their motivation to constantly improve themselves leads to mastery-focused behaviors such as increased effort, changes in learning strategies, and seeking additional support (e.g., Blackwell et al., 2007; Dweck & Yeager, 2019; Hong et al., 1999). Having such a mindset empowered the participants to take risks and face challenges they otherwise would have avoided, such as asking questions in class when uncertain or undertaking the entrance exam of a high-ranking university they initially felt was beyond them (yet ended up passing).

Conversely, the existing mindset research has established that FM-oriented students tend to be more fragile to mistakes and setbacks (e.g., Dweck, 2017; Hong et al., 1999; Murphy & Gash, 2020, Nussbaum & Dweck, 2006). This vulnerability arises from their fixed mindset beliefs, in which they attribute poor academic performances to an inherent lack of intelligence/ability rather than controllable factors like effort or study strategies. This fusing of their results to their identity as a learner causes them to interpret mistakes as an indicator of personal deficiency, triggering negative emotions. This was apparent within the Japanese FM-oriented participants' responses; their belief in innate intelligence led to an excessive focus on comparing results with peers, affecting their self-worth, and diminishing confidence when such comparisons were unfavorable. Overwhelmingly, this mindset resulted in interpreting

educational mistakes, especially public ones, negatively, causing embarrassment, shame, and disappointment. Fueled by a heightened concern for social image, these students prioritized preventing mistakes over embracing them as learning opportunities, leading to reluctance in actively participating in classroom learning for fear of social embarrassment and being perceived as unintelligent, ultimately impacting their academic achievement.

Additionally, distinctive from the existing literature on WEIRD participants, some of the FM-oriented students demonstrated they were negatively influenced by worries of '*meiwaku'*, the Japanese concept of being a burden or a nuisance to others. While individuality is strongly valued in Western countries, in Japan there is a stronger emphasis on group cohesion and conformity, and not causing meiwaku for others is an important component of Japanese culture (e.g., Muhammad, 2023; Tsunekawa, 2023; Woodman, 2023). However, a subset of participants, influenced by negative past experiences or current insecurities about their abilities, became hypersensitive to making mistakes, fearing they were causing meiwaku for others. These feelings of constant worry prompted them to be overly apprehensive in new learning situations, active participation and sharing when uncertain. Thus, their focus shifted from mastery learning goals to the avoidance goal of not disrupting the teacher or peers, over time potentially impacting their academic achievement.

Students' Beliefs About and Responses to Failure

The final category was regarding students' beliefs and responses to failures. The prevailing research has established that growth mindset students tend to have an overall higher resilience to failure experiences because they predominantly view them as contextual, and thus attribute them to factors within their control, such as overall effort exerted and study strategies employed. As such, failures often trigger a self-improvement regulatory approach in the face of

adversity (e.g., Dweck 2006, 2017; Lou & Noels, 2019; Yeager & Dweck, 2020). The Japanese university student data also corroborates this. Similar to their beliefs and responses to mistakes, a recurring theme for the GM-oriented participants was their perseverance regarding failures. While many of them discussed the negative feelings they naturally felt when falling short of their goals, at the same time they also expressed an understanding of the value of reflecting on failures for personal growth. For them, failures were described as a natural part of achieving success, in both education and life.

Furthermore, they also discussed how failure was an essential element in developing resilience and acquiring the necessary skills to surmount these setbacks. For the participants, failures were guiding moments that served as a catalyst for growth by forcing them to identify their weak points for improvement and seek out and utilize more effective learning strategies and resources. Self-reflection and strategy adjustment after failure experiences led to success in their future endeavors, which resulted in feelings of enhanced competence and confidence. Additionally, some participants also expressed how occasional failures prevented them from becoming overconfident or complacent in their current knowledge/ability. Students who do not experience failures may come to think there is nothing further they need to learn, which can result in a lack of desire for further self-improvement and possible stagnation. Thus, instead of dwelling on their failures and wallowing in negative feelings, what was most distinct about the GM-oriented participants was their focus on engaging in reflective analysis of the contributing factors and working to shore them up, thus turning failures into stepping stones for future success.

Also of note, the GM-oriented participants tended to hold an almost entirely optimistic perception regarding how others (e.g., peers, teachers, parents) viewed them when they

experienced failures. For them, since setbacks and failures were a normal part of learning and life, they believed that rather than judgement and criticism, such encounters elicited feelings of empathy and understanding from others. Since they felt compassion for others when they failed, they likewise believed that others were genuinely understanding and supportive of them when they failed. This positive perspective that others supported them and genuinely wanted them to succeed helped them maintain self-confidence, protecting them from feeling overly self-conscious and bolstering their response to the setback. Interestingly, a smaller subset of participants explained something similar, but related to feelings of indifference. They shared that they did not care much when peers they did not know well made mistakes or failed, so conversely believed that others really did not care that much about their own failures. For both groups, not being overly concerned by how others perceived them or having their identity tied to their failures was a positive factor that enabled them to concentrate instead on their own growth and improvement.

These findings were in stark contrast to the FM-oriented participants, the overwhelming majority of which viewed failure experiences as entirely negative. In their reflection responses they stated negative affect for failures, sharing feelings of disappointment, disheartenment, or even depression. Many of these participants expressed tendencies of perfectionism, and as such held high expectations and standards for themselves. These students were especially sensitive to feeling negative emotions when results fell below their expectations. This supports the existing learner mindset literature, which has demonstrated that since fixed mindset students believe their innate intelligence and ability cannot be greatly improved, failures are often seen as a personal deficiency, and thus can be damaging to their identity and self-esteem (e.g., Burchard, 2017; Diener & Dweck, 1978; Middleton & Perks, 2014). Since they are attributing failures largely to

uncontrollable factors like their current innate intelligence/ability level, rather than to contextual factors like growth mindset learners, they tend to have a lowered resilience to failure experiences (e.g., Dweck 2006, 2017; Lou & Noels, 2019; Yeager & Dweck, 2020).

Additionally, the FM-oriented participants tended to worry about what others thought of them. With regards to failure, they held a negative outlook and tended to perceive that they were being looked down on or laughed at by others. Since fixed mindset students attribute successes and failures to their innate ability and mistakenly believe they cannot improve performance, failure experiences become synonymous with failing as a person, and thus damage their identity and self-esteem more than for growth mindset-oriented students. As such, consistent with the mindset literature, they came to dread failure experiences and mentioned engaging in self-limiting behaviors such as trying to avoid difficult challenges, which served to protect their self-esteem and their image in the eyes of others (e.g., Dweck, 2017; Dweck & Yeager, 2019; Hong et al., 1999; Middleton & Perks, 2014; Nussbaum & Dweck, 2006).

Thus, the findings for research question 1.1 aligned with the existing WEIRD literature regarding learner mindset meaning systems, supporting the notion that students' growth or fixed mindset beliefs can lead to drastic differences in academic performance and achievement because of the different meaning systems they create, which influence how students think, feel, and behave throughout the learning process (e.g., Aukerman & Chambers Schuldt, 2015; Lou & Noels, 2019; Yeager & Dweck, 2020).

Research Question 1.2: Key Influential Socializers (KIS) and Lived Experiences

The second part of research question #1 investigated and sought to better understand why students came to hold a predominantly fixed or growth mindset meaning system. Research has demonstrated that one's self-perceptions of ability are powerfully shaped by lived experiences

(e.g., Aukerman & Chambers Schuldt, 2015; Usher & Pajares, 2008), with the beliefs they come to hold "determining their experience of their worlds and the way they think, feel and behave" (Murphy & Gash, 2020, p. 90). As such, this research question focused on which key influential socializers (KIS) and lived experiences students identified as having shaped their learner mindset/meaning system beliefs and behaviors.

> *RQ 1.2: Why? What key influential socializers and lived experiences students identify as having shaped their learner mindset/meaning system beliefs and behaviors?*

Results revealed the importance of four overarching groups of KIS: family, friends/peers, school/teachers, and Japanese media/society. Considering the extensive time and close interaction students spent with/in these groups, it was not unexpected that they emerged as the primary influential socializers shaping students' beliefs about intelligence, effort, and setbacks. However, whether the participants embraced a predominantly growth or fixed mindset was largely impacted by the beliefs conveyed and behaviors demonstrated by certain members within these groups. Learners, as Haimovitz and Dweck (2017) explained, "come to adopt beliefs about themselves within a broader cultural context" (p. 1855). This can occur through the key influential socializers' own learner mindset beliefs, which get signaled and operationalized by the value placed on growth and development, their responses to learner success, struggle, and failure, and the opportunities they provide for practice, revision, and support (Hecht et al., 2021; Kroeper et al., 2022). Thus, the participants' sociocultural environments and learning context played a key role in the learner mindset meaning system they ultimately came to hold.

Family

Having at least one stable and responsive relationship with a family member has been shown to play a vital role in students' academic success, as these familial relationships provide "the support, scaffolding, and protection that both buffer children from developmental

disruptions and help build key capabilities that enable them to respond to adversity and thrive" (Keown & Bourke, 2020, p. 53). This was the case with the Japanese participants as well, with family members (parents and/or siblings) being the most commonly cited KIS, both due to the importance of the relationship to them and the close proximity spent with them since they were young (and most impressionable). Across the data, the responses were almost entirely positive, with the participants sharing how a certain family member was a role model that had instilled in them the importance of believing in themselves and their abilities, working hard, and not giving up until they achieved their goals. In addition to espousing the benefits and value of hard work, more importantly the students cited instances of growing up watching that family member repeatedly working hard to overcome setbacks, operationalizing and normalizing this ethic of hard work, which they too came to internalize. All of this helped to promote growth mindset intelligence and effort beliefs in them.

Furthermore, the students also expressed how family members positively influenced their mistakes and failure beliefs. This mainly came in the form of unconditional support, in which family members consistently conveyed their acceptance of the participants, even if they failed – familial love was not conditional on success, but rather was given regardless of the outcome. When students did face setbacks or failure their family was understanding and did not criticize or judge them. However, many participants added that this support also often came with advice and guidance to help them learn from these experiences and redirect or redouble their efforts to improve themselves in order to succeed the next time. Thus, the participants explained that for their family what was most important was not whether they succeeded or failed, but that they had worked hard and strove to their best. Thanks to these beliefs, these participants came to hold a growth mindset orientation – they were more willing to work hard, not give up, and undertake

challenges that might result in setbacks or failure because they knew regardless of the outcome their parents or siblings would be there to love, support, and encourage them. This reduced their anxiety over being negatively judged or developing a fear of failure, and instead fostered in them a willingness to learn from setbacks and to continue to make efforts for self-improvement.

In addition to unconditional support, these family members also helped to normalize mistakes and failures for the participants by sharing their own personal setbacks, as well as how they responded to life's mistakes and failures. Realizing that even their parents were not immune to errors or failures provided a valuable lesson for the participants, normalizing in them the notion that failure is an inherent part of learning and life. Additionally, family members having candid conversations with them about past failures helped the students to recognize that admitting one's shortcomings to others is a healthy and normal part of life, not something that warrants concealment or feelings of shame. Thus, these experiences enabled them to reframe failure as an important and common learning experience essential for success in life. As a result, this empowered many of them to take on challenges they initially perceived as beyond their capabilities, such as the entrance exam for this high-level university. They undertook endeavors they might never have considered, let alone accomplished, were it not for these familial key influential socializers' positive growth mindset beliefs about effort and failure.

These findings align with prior research demonstrating that the degree of familial support students' experience and the emotions they associate with the learning process are a strong component of their overall academic achievement (e.g., McCaslin, 2009; McClelland, 1985; Middleton & Perks, 2014), with family members that provide both caring support and high expectations playing a vital role in fostering resilience and success (e.g., Bernard, 1991, Hendry et al., 1992; Morrison & Allen, 2007). As Muenks and colleagues (2015) noted, GM-oriented

parents consistently demonstrate an enduring faith in their child's ability to improve, even in the presence of setbacks. Consequently, these parents are more likely to engage in behaviors at home that focus on fostering a learning-oriented environment to help their children learn and grow. In turn, these learners, buoyed by their parents' trust and support, can retain a belief in themselves and the value of effort for success even in the face of setbacks, which leads to a greater willingness to seek out assistance and heightened resilience when facing challenges.

However, in contrast to the above, a small subset of participants in the data instead expressed how certain family member's failure beliefs had negatively influenced them, fostering a mindset that failure experiences are wholly negative and things to be avoided at all costs. Namely, this was related to high parental expectations, with familiar praise and support being conditional on the students' success. These students felt a constant pressure not to make mistakes and always be seen as successful in the eyes of their family. In fact, a desire for perfectionism was a common theme amongst these participants. Setbacks and failures led to parental anger or disappointment, and resulted in feelings of inadequacy, shame, or depression. The participants explained that over time this led to a fear of mistakes/failure, which in turn negatively impacted their willingness to take on challenges or risks where they may fall short. Thus, for this subset of students, family members had a negative impact on their beliefs and responses to setbacks and failures, predominantly promoting a fixed mindset orientation in them.

These results are also consistent with the existing mindset literature, which has shown that how family members respond to setbacks or failures affect students' ensuing academic behaviors (e.g., Gunderson et al., 2013; Haimovitz et al., 2016; Hooper et al., 2016; Park et al., 2016), with learners whose parents view failure as debilitating— something that hurts success and should be avoided— tending to absorb such beliefs themselves over time (e.g., Achor, 2018;

Haimovitz & Dweck, 2016, 2017; Muenks et al., 2015). Parents who respond to their child's academic setbacks by scolding them, worrying about their future potential, or pitying them over time demonstrate fixed beliefs in their academic capabilities, which ultimately promote more of a FM-orientation in their child. Thus overall, how family members view effort and failures and their responses to their child's setbacks played a large role in which learner mindset orientation the participants came to hold.

Friends/peers

Along with family members, friends/peers were the most commonly cited KIS by the participants concerning their learner mindset beliefs about intelligence and effort. Existing literature has demonstrated that students greatly care about forging connections with each other (e.g., Bowen & Watson, 2017; Jensen & Nutt, 2015; Siegel, 2014), and that peer groups can have a large effect on students' values, behaviors, and academic goals (e.g., Morrison & Allen, 2007; Pascarella & Terenzini, 2005; Price-Mitchell, 2016). This proved to be true within this study as well. Reflection responses were predominantly positive, with participants discussing friends or peers from their classes or cram school who were influential academic role models for them. These peers fell into two groups: 1) individuals who initially were not considered naturally intelligent or talented, but by putting in an inordinate amount of effort were able to improve themselves and achieve their goals, or 2) individuals whom the participants felt were already quite intelligent/talented, yet who despite this continued to demonstrate an unceasing ethic of hard work to ensure continued success. Both groups of role models were seen as always studying and pushing themselves to achieve ambitious goals.

Interestingly, rather than engaging in negative comparisons with their high-achieving friends or peers and becoming disheartened, students with a growth mindset orientation instead

chose to be inspired. They interpreted friends' academic abilities and successes as a source of hope, believing that they too could achieve similar success through their own hard work and dedication. This result is consistent with previous research findings which indicate that when students witness well-liked peers working hard to successfully perform and master academic tasks, it can boost their own self-efficacy by enabling them to believe that they, too, can achieve academic success, despite prior performances (e.g., Bedford, 2017; Schunk, 2003). Thus, having relatable role models whose accomplishments seem within reach can play an integral part in fostering and maintaining students' academic motivation, as well as developing their educational goals and career aspirations (e.g., Boardman, 2021; Keown & Bourke, 2020; Price-Mitchell, 2016).

Certain friends or peers were also described as a positive influence shaping the participants' mistake and failure mindset beliefs. The participants shared how these individuals were not afraid of making mistakes nor felt trapped by failures, but instead viewed them as learning experiences and opportunities to grow. As such, they were able to continue to work hard towards their goals without getting overly discouraged or giving up. This mindset belief was inspirational for the participants, who discussed how they strove to be like their role model friend. Of note, several of the participants discussed a cram school friend who had faced a significant setback – failing the university entrance exam— and was studying for another entire year to be able to challenge it again. The participants shared feelings of shock that these individuals did not believe this failure was something to be ashamed of, but rather had been a necessary wake up call to reflect on themselves, their goals, and their approach to learning, and to find more effective and efficient ways to succeed without giving up on their dream university.

Their friend's behaviors empowered the participants as well to view setbacks in a more positive light, reframing them as valuable opportunities for learning and development.

Some of the participants also conveyed admiration for friends who, while confronting and overcoming failure experiences, demonstrated an ability to turn them into amusing stories and laugh them off. Instead of remaining disheartened or getting discouraged, these KIS instead focused on finding humor within their failure experiences, reframing them to motivate themselves to continue to work hard. From this the participants learned the importance of sharing setbacks with trusted friends for support while not allowing them to negatively influence their goal of self-improvement or their long-term well-being. This inspired them to internalize this coping mechanism, which they explained was a huge boon for them during negative times as a way of coping with setbacks throughout their schooling experiences. This reframing approach contributed to the participants holding a more positive and GM-oriented perspective on failures by transforming them into opportunities for storytelling and peer bonding.

Lastly, the participants shared various instances of their friends providing valuable positive support in the face of their own personal failures, such as kindly listening to their feelings and cheering them up. They felt lucky to have such great friends, who let them know that it was okay to fail and that such failures would make them stronger in the long run. This encouragement to persevere in the pursuit of their goals helped instill in them a growth mindset orientation. These findings are in line with the existing research showing that social relationships can help to act as a buffer from stressful situations, and that talking with positive-minded friends can help distract students from or cushion the blow of setbacks and failures (e.g., Achor, 2018; Kwek et al., 2013; Pressman & Cohen, 2005). Peers can often be a powerful influencer since they are going through the same experiences as the participants themselves. Thus, witnessing

firsthand how their friends positively responded to failure experiences had a profoundly positive effect on the participants' own beliefs and responses to effort and setbacks. Friends and peers acted as role models and sources of unwavering support and encouragement, and their positive attitudes to persevere in their goals contributed to fostering a growth mindset orientation within the participants.

However, in stark contrast, some of the participants instead demonstrated a FM-orientation within their reflection responses, predominantly focusing on negative social comparisons with high-achieving friends or peers. Unlike the GM-oriented participants, these students did not focus on the efforts or work ethic of their successful peers, nor did they view them as positive role models to aspire to; rather, their narratives centered on their perception that these individuals were inherently talented or superior to them. These negative comparisons had a deleterious impact on their overall self-belief and confidence, fostering feelings of inadequacy and inferiority and leading them to believe that there was an ability gap and that any efforts they made would be insufficient to catch up with their seemingly more intelligent peers. This ultimately eroded their belief in themselves and their potential, negatively impacting their emotional well-being and academic motivation. These findings are in line with prior research that has demonstrated that academic social comparisons can have negative drawbacks. Students with a fixed mindset orientation tend to engage in more frequent social comparisons, and the inclination to seek such comparisons has been associated with lower self-esteem and an increased risk of depression (e.g., Boardman, 2021; Djikstra et al., 2008; Keown & Bourke, 2020; Sheffler & Cheung, 2023).

School/Teachers

The next learner mindset KIS frequently cited by the participants was school, specifically certain teachers who had taught them. Aside from their family, young learners spend much of their time at school, and thus are exposed to the values and beliefs of their teachers throughout their childhood and adolescence. These educational dominant discourses can play a significant role in shaping their perspective of learning and the learner mindset orientation they come to hold. Regarding their effort beliefs, some participants discussed memorable educators as positive influences on them, recounting how they emphasized the importance of hard work and not giving up in the pursuit of their goals. These teachers did not think the participants' intelligence or ability were fixed entities, but rather believed they could improve through effort and sought to pass on this growth mindset to them. Towards this end, these teachers provided them with steadfast encouragement and support, fostering in the participants a strong work ethic and motivating them to believe in their ability to improve and grow.

The existing learner mindset research has shown that teachers can play a pivotal role in creating conditions that foster either a fixed or growth mindset by shaping students' perceptions of intelligence and ability through their words, actions, and the learning environment they foster (e.g., Haimovitz & Dweck, 2017; Yeager et al., 2022). When teachers communicate that student achievement is not predetermined by past performance but rather is influenced by hard work and effort, they shift students' focus toward self-development and self-motivation. By explicitly acknowledging their efforts and emphasizing the belief that everyone can learn and improve, teachers play a pivotal role in translating this belief into a tangible reality, nurturing a growth mindset orientation (e.g., Dean & Hubbell, 2012; Dweck, 2006, 2017). Such positive words and behaviors from their instructors can in turn motivate students to take on more rigorous learning

experiences and to persevere when they experience academic challenges or difficulties (e.g., Cohen et al., 2009; Walton & Wilson, 2018; Yeager et al., 2019).

With regards to their mistake/failure mindset beliefs, teachers also emerged as a significant KIS, second only to family members. However, participants' views were divided. A cluster of students discussed encountering an influential teacher who played a key role in fostering positive failure beliefs in them. These teachers supported the participants when they experienced setbacks, responding with compassion, offering valuable guidance, and teaching them to reflect on and learn from their failures to improve themselves for future success. They also sought to create a classroom culture that normalized mistakes and failures, encouraging the participants to view them mainly as learning opportunities. By promoting resilience and perseverance, these teachers guided the students through their setbacks, teaching them not to give up easily or fear failure, but rather to embrace it as improvement and growth. Some of these teachers also at times openly shared their own setback and failure experiences, demonstrating to the participants that even they were not perfect, and their success had not come without difficulties. Thanks to the positive views of these key influential educators, the students came to perceive setbacks as something not wholly negative, but rather as necessary for learning, fostering a growth mindset orientation toward challenges. This aligns with prior studies, which have shown that how educators respond to students' setbacks or failures influences their academic beliefs and behaviors (e.g., Gunderson et al., 2013; Haimovitz et al., 2016; Hooper et al., 2016; Muenks et al., 2015; Park et al., 2016). Particularly, teachers' behaviors and responses to learner setbacks affect the type of classroom environment they create and plays an important role in students' development. Educators who provide emotional, motivational, and strategic support can help to foster resilience in learners, ultimately promoting a growth mindset

orientation (e.g., Haimovitz & Dweck, 2016; MacDonald & Validivieso, 2000; Morrison & Allen, 2007).

However, the majority of study participants stated that school and certain teacher KIS had had a predominantly negative influence on their mistake/failure beliefs, fostering a fixed mindset orientation. They explained that their school environment generally did not allow for failure, which resulted in a adverse learning culture. The participants recounted various negative lived experiences of strict teachers who were intolerant of their mistakes or failures, making them feel embarrassment or shame. Instances of teachers getting angry with them or for allowing a classroom culture where peers mocked each other's mistakes/failures instilled in them a pervasive fear of mistakes and failure throughout their school lives. These educators' words and actions diminished the participants' academic motivation and had a detrimental impact on their self-confidence. Furthermore, even though some of their teachers exclaimed the importance of failure as a stepping stone to success, the participants came to perceive a dissonance between these proclamations and the actual reality of their academic experiences. For them, the prevalence and importance of standardized test scores and grades established failure as significant obstacles that lead to irreparable situations rather than as valuable learning opportunities.

This prioritization of final results/grades by their teachers rather than their incremental effort and personal growth had a demoralizing impact on the participants, resulting in feelings of disheartenment, inadequacy, and discouragement in their learning environment. Past learner mindset studies have demonstrated that educators who hold a predominantly fixed mindset tend to judge struggling students as having low abilities, hold minimal expectations for their future work, and ultimately engage in pedagogical practices that lead to a reduction in student

motivation and engagement (e.g., Lee, 1996; Rattan et al., 2012). Such lowered expectations are often communicated to students through feedback and actions, leading to a gradual decline in their self-efficacy, motivation, and learning potential. Consequently, a harmful cycle ensues, becoming a self-fulfilling prophecy where students' underperformance reinforces teachers' persistent low expectations. This perpetuates a cycle of negative feedback and responses, cementing a fixed mindset regarding the students' abilities.

Japanese Society

While less prevalent than the above groups, a final notable KIS mentioned by participants was that of Japanese society—namely athletes, popular media, and societal views in general. Athletes and popular media were mentioned in an entirely positive light, with the participants explaining how certain individuals had greatly influenced their effort and failure growth mindset beliefs. Admired Japanese athletes such as baseball player Ichiro Suzuki and Olympic figure skater Mao Asada were sources of inspiration for them, particularly regarding their perspective towards hard work and experiences with setbacks. Students emphasized how these role models did not claim to have innate talent or be natural geniuses, but rather imparted that their success was due to their unflagging work ethic and perseverance. Such beliefs made the students themselves come to believe that they could achieve their goals by continuing to make efforts despite any setbacks they faced.

Similarly, participants also drew inspiration from popular fictional characters from various Japanese manga, anime, or TV dramas, due to their relentless determination to succeed while maintaining a positive outlook through difficulties. Students explained how most of these characters started out weak, looked down upon, or facing serious issues, yet through consistent efforts over time and a belief in themselves could get stronger or more capable, ultimately

achieving their long-term (and often ambitious) goals. The participants shared that when they faced their own life challenges or felt down about failures they thought about these characters and their experiences, which encouraged them to continue to persevere toward their goals.

These mindset findings align with existing research on role models within the psychological sciences, which has established the positive impacts they can have on learners, such as increased self-esteem, academic motivation, performance, and resilience (e.g., Atif et al., 2022; Keown & Bourke, 2020; Yancey et al., 2002). Studies have also demonstrated the influential effect role models have in shaping learners' attitudes and values, as identification with the values or beliefs of an admired role model can lead students to adopt those views as their own (e.g., Busselle & Bilandzic, 2008; Hoeken et al., 2016). Furthermore, the observed behaviors and attitudes of role models can both consciously and unconsciously be internalized into learners' own belief patterns and behaviors (e.g., Bandura & Barab, 1971; Cruess et al., 2008). Considering how popular sports and manga/anime are among Japanese university students, it is not unexpected that for some they would play an impactful role in influencing their learner mindset orientations. Role models often can be seen as extraordinary individuals that represent and reflect personal and socio-cultural values (Porpora, 1996; Power & Smith, 2017), and which reflect "desired possible selves" (Gash & Conway, 1997, p. 351). For the participants, reading about or watching their role model athletes or protagonists embody growth mindset effort and failure ideals in their struggles towards their arduous goals played a pivotal role in them internalizing a growth mindset-orientation as well.

However, the majority of participants who talked about Japanese society as a whole in their reflection responses did so in a negative light, particularly pertaining to its fixed mindset outlook regarding mistakes and failures in general. Participants stated that Japanese culture tends

to view failure as an embarrassment and thus lacks tolerance for it. As such, avoiding mistakes and failures is often associated by others with greater ability and positive perceptions. Participants noted that this cultural emphasis on avoiding challenge and failure coupled with a fear of judgment by others contributes to a fixed mindset orientation within Japanese society, and that growing up within this "culture of shame" had a negative impact on their own attitudes and beliefs. Contributing to this, they also discussed how high societal expectations to avoid failure leads to Japanese society having perfectionistic tendences. This perfectionism results in students caring too much about external judgments, discouraging them from undertaking risks or difficult challenges and instead resulting in avoidance goals to avoid social embarrassment.

Additionally, some participants explained that Japan maintains an overly strong focus on social conformity, valuing harmony, stability, and maintaining the status quo, which creates a fixed mindset environment. This was contrasted with Western countries like America that tend to focus more on individualism, diversity of ideas, innovation, and growth through change. The participants above insights into Japanese society were consistent with the established literature regarding Japan's collectivist nature, where its cultural values and traditions often prioritize the importance of group harmony and conformity nature (e.g., Gudykunst et al., 1996; Kobayashi et al., 2010; Kobayashi & Farrington, 2020). This emphasis on community cohesion contributes to a sense of unity in Japan, but also can result in serious issues, such as extreme social pressure via societal expectations from an early age, particularly within its highly competitive education system (e.g., Arimoto et al., 2015; Ittoku, 2020; Woodman, 2023). Added to this, a fear of shame is also ingrained in Japanese society, with a distinct stigma attached to many forms of failure (Muhammad, 2023; Tsunekawa, 2023). This shapes the way children are raised and instills in them a fear of deviating from the norm (Goodman, 2009; Romero, 2020). Thus, the prevailing

negative societal perspective on failure in Japan, rooted in perfectionism and conformity, negatively influenced these participants, fostering a fixed mindset orientation. These insights underscore the substantial role societal norms play in shaping students' perspectives on failure.

Research Question 2: The Japanese Education System's Influence on Learner Mindsets: Participant Critiques and Suggestions

In research question #1, the participants discussed the sociocultural factors, lived experiences, and key influential socializers they believed had impacted their learner mindset beliefs concerning intelligence, ability, effort, mistakes, and failures. As expected, a significant number of the participants identified school-related learning experiences as a major factor influencing these beliefs. This is because students' identities as learners are greatly shaped by the dominant discourse social and cultural practices present within their schooling environments (Au, 2009; Bradbury, 2019; Middleton & Perks, 2014). However, much of the existing literature has sought to ascertain which learner mindset students predominantly hold, with very few studies teaching students about growth and fixed mindsets and then having them reflect on the educational institutions of their country. As such, research question #2 sought to delve deeper into this.

> *RQ #2.1: In what ways do Japanese university students describe the Japanese education system as fostering or hindering a growth mindset/meaning system?*
>
> *RQ #2.2: According to students, how can a growth mindset/meaning system be better fostered at school?*

After having completed the learning modules regarding learner mindsets, the participants shared their perspectives regarding whether they felt the Japanese education system predominantly promoted a growth or fixed learner mindset, citing lived experiences to explain why. Lastly, they shared their suggestions on how a growth mindset can be better cultivated within the Japanese education system.

Fosters a Growth Mindset-Orientation

Within the data, some participants expressed their views that the Japanese education system cultivates a growth mindset orientation among learners. They explained that although they must undergo many assessments throughout junior and high school—particularly in preparation for the university entrance exam– they also often have opportunities to learn from the results of these tests. By continually reflecting on the reasons for mistakes or low scores and then using those insights to improve themselves and their scores on subsequent assessments creates a positive cycle where the impact of effort is visibly apparent. These opportunities can contribute to fostering a growth mindset by emphasizing the connection between effort and success.

Additionally, as discussed in research question 1, participants also highlighted positive feedback and support from teachers as a significant factor in promoting a growth mindset in learners. Praise—for both dedicated effort and academic performance—motivated the participants to continue to persevere and work hard throughout their schooling, even in the face of setbacks. This acknowledgment of caring and support by teachers not only contributed to academic motivation but also made the participants cognizant of the correlation between hard work, perseverance, and growth. A wealth of research has demonstrated that a key determinant of student success is the rapport established between teachers and their students. Instructors who build meaningful connections with their students prioritize both their personal well-being and academic growth, fostering resilience and actively supporting them in reaching their goals (e.g., Brophy, 2004; Dean & Hubbell, 2012; Hattie, 2009; Middleton & Perks, 2014).

Lastly, in addition to their teachers, some students also noted that depictions of the Japanese education system in various media, such as movies and TV shows, also seek to instill a growth mindset amongst viewers. These media often highlight struggling or seemingly low-ability students, who through a supportive and caring educator and their own hard work are able

to gradually improve and ultimately achieve their dreams. The participants explained that these portrayals emphasize the idea that consistent and diligent effort will lead to improvement and success for any type of learner, aligning with the values of a growth mindset orientation.

However, in contrast to the above, the vast majority of the participants in this study conveyed their shared belief that the Japanese education system predominantly promotes a fixed mindset. This consensus centered around three overarching themes: the system's prioritization of results over process, its practice of social comparison and competition, and its strong emphasis on social conformity contributing to a negative learning environment.

Fosters a Fixed Mindset-Orientation

1.) Results-focus vs. Process-focus

The most cited theme highlighted by the participants as to why the Japanese education system promotes a fixed mindset culture was its prioritization of results over the process of learning and incremental improvement. Students lamented that academic success was primarily determined by how their test scores compared to that of their peers or external benchmarks, with there being little focus on their efforts or how much they had improved during the learning process. This overemphasis on outcomes often made the students feel their efforts were meaningless if they did not score highly, contributing to a sense of limited potential and instilling in them a fixed mindset orientation. As a result, even if some teachers tried to instill a growth mindset by encouraging hard work, the participants were skeptical this was true, and felt disillusioned and demotivated due to the predominance of this culture of only final results mattering.

Due to this overemphasis on results and grades, participant recommendations centered on wanting a shift in the Japanese education system to focus more on the process of learning and

one's own individual efforts. Considering the diversity in individual abilities and the varying effort required to meet standards, many expressed that a system that also evaluates and recognizes their exerted efforts and incremental growth would better motivate individuals to realize their potential for continuous improvement and thus be beneficial in promoting a growth mindset.

Additionally, some participants also pointed out how certain teacher praise methods, such as attributing success to innate talent rather than effort, also inadvertently reinforced a fixed mindset. The tendency of teachers to label students as "smart" without acknowledging their efforts can lead to the misconception that success is solely tied to inherent abilities. As such, this approach can create a fear of making mistakes in students, weakening resilience. This finding is consistent with prior studies which discovered that ability praise can foster a fixed mindset orientation in learners, in contrast to effort praise focusing on their work ethic promoting a growth mindset orientation (e.g., Gunderson et al., 2013; Kamins & Dweck, 1999; Mueller & Dweck, 1988; Pomerantz & Kempner, 2013; Yeager & Dweck, 2012). Participants expressed that they do not want to be praised just because they managed to achieve a high score, but instead they want acknowledgement of how much time, effort, and perseverance went into achieving that result. They explained that sometimes despite making efforts students will receive results below expectations. But if these efforts are not acknowledged it can detrimentally impact their self-esteem and confidence, causing difficulty in maintaining high motivation going forward. In contrast, if educators praise them for their efforts while providing support and constructive feedback they can more easily recover from the setback and continue to try their best.

However, participants also noted that just praising is not enough – teachers need to also provide better support and follow-up when they make mistakes or fail. Multiple students shared

experiences of teachers telling them to just “try harder” or “study more” after a poor result, which left them lacking confidence and uncertain of what to do. Instead, they proposed that if the teacher can look at their study process together with them, identify what caused the poor result, and give reasonable and practical suggestions for improvement it can stem their discouragement and loss of confidence. Thus, teachers need to first promote the idea in learners that the most valuable thing is effort and the learning process to better instill a growth mindset. They then need to go beyond just giving positive praise or superficial encouragement and additionally provide clear instruction and feedback, so students are equipped with the learning strategies needed to reflect on and improve their weak points, to learn from mistakes/failures and utilize them for future success.

2.) Constant competition and social comparisons

The second prominent theme highlighted by participants as contributing to a fixed mindset orientation was the culture of pervasive constant competition and social comparisons within the Japanese school environment. Specifically, a common practice exacerbating this was teachers’ public disclosure and posting of students' test scores and academic rankings throughout their junior and high school years. Although this practice could be a motivating factor for students to see the successful results of their hard work, participants emphasized the detrimental impact this had on their self-confidence and mental well-being. Those consistently scoring in the lower half of the rankings came to perceive themselves as academically inadequate, which fostered in them the unfounded belief that their higher-ranking peers possessed greater natural intelligence or ability than them. Narratives from the participants shared that even when they worked hard and had been able to improve upon their prior score, if they still saw themselves ranked relatively low compared to their peers it led to feelings of futility and disheartenment.

This practice resulted in the establishment of a classroom hierarchy based solely on academic results throughout their secondary schooling, where high-scoring individuals were labeled and seen as "good" students and low-scoring ones as "bad" or “struggling.” Over time this caused those negatively labeled to feel inferior, less confident, and resigned to their perceived lack of innate intelligence/ability, detrimentally impacting their belief in their potential to ever “catch up with” their higher-performing peers irrespective of their efforts. Furthermore, this practice of competition and social comparisons also led to students utilizing suboptimal study strategies such as rote memorization and cramming. Rather than deep learning being the priority, students instead came to care only about their scores and engaged in ineffective learning methods that helped them in the short-term but hindered their long-term retention and learning. This is consistent with the existing literature that has shown that testing-centric curriculum affect learning and teaching by influencing the content, pedagogy, and teaching practices of educators and the study methods of students (e.g., Arai, 2012; Cheng et al., 2004; Kuramoto & Koizumi, 2018; MEXT, 2014a).

In sum, the discouraging impact of this hierarchy system, coupled with the emphasis on social comparison rather than personal growth, fostered in the participants the belief that Japanese education system led to a fixed mindset orientation in learners. This is in line with prior research which have shown that an educators’ predominant orientation toward either learning or performance practices can impact students’ learner mindsets (e.g., Muenks et al., 2020; Park et al., 2016; Sun, 2015; Yeager et al., 2022). These studies revealed that teachers who predominantly focused on students' existing abilities, conveying distinct expectations based on achievement levels and utilizing methods like ability tracking, social comparisons, and praising high-performing students contributed to the establishment of a classroom culture that nurtured

fixed mindset beliefs among students. The promotion of conformist behaviors, social competition, and comparisons of academic achievements can threaten students' willingness to engage with learning challenges and their enjoyment of their academic pursuits (Hargreaves et al., 2021).

Concerning this critique, the participants conveyed that as long as the Japanese secondary education continues to utilize constant competition and social comparisons, a growth mindset will not be promoted in many learners. Instead of the current overemphasis on academic results and constantly comparing them with and pitting them against their peers, they desired a shift in the education system to focus instead on both collaborative learning and better identifying and developing their unique individual strengths and characteristics. Japan currently puts too much weight on the test scores and grades of a few specific content areas, overlooking the potential of students who excel in other areas. By also valuing research and group projects, athletics, liberal art, extracurricular activities, and volunteer work, students who struggle in traditional core academic classes can still discover and be appreciated for other unique talents they possess. Learner mindset orientations do not apply just to studying, but to all facets of life, so this educational approach can help foster a growth mindset in such students, leading to increased self-confidence and a willingness to embrace new challenges. Creating diverse evaluation opportunities and overcoming societal pressures for conformity empowers all students to develop their individuality and pursue their own individual passions.

3.) Social conformity pressures

Lastly, participants conveyed that Japanese educational institutions cultivate a fixed mindset by fostering a negative learning environment that stigmatizes mistakes and failures, instilling a fear and avoidance of such experiences. Specifically, the crux of this issue stems from

Japanese schools' emphasis on social conformity. Participants explained how pronounced group dynamics were throughout their schooling experiences, with learning outcomes sometimes evaluated as collective achievements. Considerable research has revealed that while Western cultures tend to promote individualistic cultural views, focusing on validation of internal attributes, East Asian cultures such as Japan instead promote interdependent or collectivist views, emphasizing connection within one's societal environment, actions that align with societal expectations and a sense of harmony within social contexts (Hagger et al., 2014; Nishimura & Sakurai, 2017). Thus many cultural practices in Japan are associated with a sense of communal cohesion and come to be highly valued (Arimoto et al., 2015; Markus & Kitayama, 1991). As such, diverging from the group norms is often deemed as wrong, intensifying students' concern about social perception. Furthermore, participants discussed the cultural aspect of "reading between the lines" in Japan, where students are expected to conform to their surroundings in various classes. This cultural expectation, they argued, creates a classroom atmosphere that makes it challenging to openly share their thoughts, express opinions, or try approaches different from the norm. Individuals with a fixed mindset tend to fear making mistakes due to the importance placed on others' opinions, and the education system in Japan perpetuates and reinforces this mindset.

In their suggestions, the participants desired a departure from this prevailing social conformity within the Japanese education system, explaining that the traditional adage "the nail that sticks out gets hammered down" dissuades individuality and acts as a barrier to fostering a growth mindset, since the fear of embarrassment and an aversion to mistakes hinders personal development. They highlighted the importance of fostering an atmosphere that encourages students to express their opinions and ideas and make mistakes without constant concern for

societal expectations or judgments. To achieve this, educators need to create a classroom environment that allows for a diversity of opinions in students and is a supportive and non-judgmental space. Additionally, participants expressed a desire for teachers themselves to openly share their own mistakes and failures, ranging from trivial to significant, and actively discuss the lessons learned from these experiences. Fraser and colleagues (2018) noted that even when told by teachers that setbacks are a necessary part of learning, students often continue to find difficulty in embracing mistakes and viewing them in a positive or constructive light. By showing that they are not perfect and that mistakes are a normal aspect of learning and life, teachers can contribute to reducing students' own perfectionistic tendencies and views about setbacks. Through candid discussions about overcoming difficulties and continuous learning, teachers can create a classroom culture where students perceive failure as a natural and essential aspect of their educational journey, encouraging them to embrace challenges and setbacks with resilience and a growth mindset.

Further Participant Suggestions

While the above three themes were the predominant critiques the participants had about the Japanese education system, they provided several other insightful suggestions regarding what is needed to better cultivate a growth mindset orientation among learners.

1.) Normalize mistakes/failures

Among the participants' suggestions, the majority of them centered on the necessity of schools and teachers to foster a more positive learning environment. Above all else and as discussed in research question #1, participants conveyed the importance of normalizing mistakes/failure throughout their education. Beliefs that Japanese culture looks down on those who make mistakes or fails and concerns about external evaluations and social perceptions were

cited as major barriers to students having a growth mindset. Participants explained how they felt ashamed to make mistakes in many of their classes, with some having experienced teachers or peers who laughed or criticized them for it in the past, which instilled a fear of imperfection in them. However, in contrast, they also discussed classes they had taken where their teacher had instead created a collaborative and fostering environment where they were not critical of mistakes, but rather utilized them to further all students' learning. In these class environments the participants expressed feeling more relaxed and were much more willing to engage in the lessons, ask questions, and challenge difficult material.

This is consistent with existing research, which has found that communicating to students that it is acceptable to make mistakes and that failures are common and even necessary aspects of learning are a key strategy to promote a growth mindset in learners (e.g., Barnes & Fives, 2016; Dweck, 2006/2017, Keaney, 2014). Additionally, findings have shown that a crucial factor influencing students' perceptions and their own learner mindsets was the establishment of a positive classroom culture through teachers' own corresponding growth mindset words and behaviors (e.g., Haimovitz & Dweck, 2017; Hooper et al., 2016; Yeager et al., 2022). This demonstrates the need of teachers to impart to learners, especially from an early age, the growth mindset belief that setbacks are a normal and inherent part of the learning process and should be seen as valuable opportunities for reflection, self-improvement, and growth, rather than something negative to be ashamed of.

2.) Having a clear academic identity/positive sense of purpose

In their reflections, participants also highlighted the role that having a clear academic identity and a positive sense of purpose had in cultivating a growth mindset orientation. Possessing clarity regarding their chosen area of study and their underlying motivations was

emphasized as having greatly impacted their motivation levels, attitudes toward exerting effort, and how they responded to mistakes and failures throughout their academic pursuits. Beyond the conventional view of education as a pathway to future success, their narratives revealed that studying and learning was a source of both enjoyment and personal enrichment for them. Rather than solely pursuing subjects that were deemed socially valuable or could result in a future high salary, the participants stressed the importance of trying to align their academic pursuits with genuine interests to develop a love of learning. By focusing on acquiring knowledge, expanding their worldviews, and nurturing personal improvement, they developed an intrinsic motivation toward learning. This acted as a catalyst for cultivating a growth mindset, as their primary emphasis lays on individual growth rather than fixating on academic grades or scores. Decades of research in the field of psychology has shown that students who hold intrinsic motivation are more likely to persist in the face of setbacks, learn from mistakes, and progress toward constructive goals (e.g., Csikszentmihalyi, 1990; Godin, 2011; Ryan & Deci, 2000).

The participants additionally discussed the importance of discovering and clarifying their specific purpose regarding what they wanted to learn in school and how they hoped to use it in the future as soon as possible. Having such a clear sense of purpose linking their studies to their future goals gave their learning deeper meaning and served as a source of motivation and resilience, better enabling them to persist in their learning despite challenges and setbacks. Conversely, students lacking this clarity in their academic sense of purpose reported struggling to find meaning in their studies, reduced motivation, and diminished resilience to academic challenges and setbacks, which ultimately resulted in them holding more of a fixed mindset orientation. Previous research (e.g., Damon, 2008; Dweck et al., 2014; McKnight & Kashdan, 2009) highlights the importance of guiding students to discover the meaningful purpose of

learning to foster enthusiasm and cultivate a growth mindset. Encouraging students to connect their learning to personal aspirations and contributions to society increases engagement and persistence in their educational journey, emphasizing that learning is more than a method to pass tests—it is a pathway toward personal growth and making valuable contributions to the world and others.

Contributing to this, some students discussed the difficulties and uncertainties they faced transitioning from their junior/high school life to university life. Overall, their secondary education was very structured, and most decisions regarding what classes to take or what to study were made for them by the education system. They all had one predominant goal driving them—to succeed in passing the university entrance exam—leaving little room for them to explore their own personal interests, goals, and passions. Due to this, many were unprepared for the relative autonomy of university life, where for the first time in their academic lives they needed to decide for themselves what classes to take, major to study, and what their academic and future trajectory and goals would be. Since these students had not yet had the chance to develop concrete academic goals and find their purpose, they explained not being prepared for this sudden change from structure to freedom, feeling lost rather than empowered. These findings underscore the importance of students having a well-defined academic path and a purposeful towards learning as a further means for fostering a growth mindset orientation.

3.) Have clear learning goals

Related to having a clear overall academic sense of purpose, the final key theme students discussed was the importance of having clear learning goals. Participants explained that clarity in their objectives enabled them to constantly gauge their proficiency and progress, fostering a deeper understanding of their current strengths and weaknesses. They then could identify areas

of improvement and strategic next steps to take to move closer to success. Lacking well-defined objectives during their learning leads to students experiencing confusion and a decline in motivation. The findings revealed the importance of clear, tangible goals for sustained motivation and driving the participants' persistent effort—a foundational element of a growth mindset.

Participants also explained that to be successful in university requires sustained effort, but it is difficult to continue to work hard and stay motivated without having a clear goal to strive for and fall back on. However, by having both large and small goals to strive for enabled them to work towards a specific purpose more effectively and efficiently. Thus, a cyclical dynamic emerged between success and motivation, with the accomplishment of goals generating a sense of achievement, which further propels students' ongoing motivation. Furthermore, some participants shared that having well-defined learning goals prompted a shift in their emphasis in focus towards the learning process, resulting in genuine enjoyment of studying for its own sake. As a result, they were able to shift away from only holding performance goals, and instead—driven by their intrinsic motivation—adopted a less comparative approach with peers and a diminished preoccupation with test scores. This aligns with prior studies that have shown that having clear learning goals leads to higher student motivation, deeper satisfaction with their school learning experiences, and holding more of a growth mindset orientation (e.g., Dweck 1999; Dweck & Leggett 1988; Murphy & Gash, 2020). Thus goals not only provided the participants with direction but were integral to sustaining motivation, driving hard work, and helping them realize success.

In sum, participant insights underscored the critical role of educational institutions and teachers in creating a classroom environment and culture that either fosters or hinders the

development of a growth mindset in students. By creating a positive and supportive learning culture and normalizing mistakes and failures as a natural part of the learning journey, students will come to be less ashamed and fearful of criticism and judgement. Then by helping students to figure out their academic identity/sense of purpose and establishing clear goals, educators can improve students' motivation and learner mindset orientation, enabling them to focus their attention less on external benchmarks, grades, and comparisons with their peers and instead on their own unique self-improvement and personal dreams.

CHAPTER 7: Educator Implications

Understanding and fostering learner mindsets is crucial for educators aiming to create an optimal environment for students' growth and academic success. These learner mindsets are primarily shaped and maintained by the dominant discourses within the institutional practices of school, its pedagogical culture, and the broader sociocultural environment (Laurell et al., 2021). Research has investigated connections between students' academic experiences, well-being, and future work success, and revealed that among the most important factors are students having teachers who hold and try to foster a love of learning, who care about them as a person, and who encourage and support them in defining and pursuing their academic and future dreams (Bowen & Watson, 2017; Gallup-Purdue, 2014). These encompass many of the key aspects of a growth mindset.

Moreover, the depth and breadth of the students' voices represented in this qualitative study support an important implication for institutional practices—that the mindset educators operationalize in their teaching practices plays a key role in shaping students' learning beliefs, experiences, and responses to academic challenges, directly influencing their own mindsets. This section discusses these educator implications and strategies for integrating practices that foster a growth mindset. By embracing such approaches, educators can contribute to cultivating a mindset in their learners that not only enhances academic achievement, but also instills the resilience and adaptability essential for lifelong learning and growth.

Knowledge of Learner Mindsets

Explicitly teach students about learner mindsets

Firstly, for students to benefit from having a growth mindset they need to know what it is. After learning about growth and fixed mindsets, many participants in this study expressed

amazement regarding its usefulness, as well as dismay for not having learned about it much earlier in their educational journey. A wealth of prior research has shown that growth mindsets are something that can be explicitly taught and learned (e.g., Dweck 2006, 2017; Walton & Wilson, 2018; Yeager et al., 2019). Therefore, incorporating lessons on learner mindsets throughout their schooling—as early as elementary or junior high school—could go a long way towards more deeply instilling the core tenets of a growth mindset in learners, for them to benefit from throughout the entirety of their academic experiences. A multitude of resources created by both Carol Dweck and others are available to educators to introduce learner mindsets to students of all age and ability levels.

Educator growth mindset training and cultivation

However, for educators to be able to instill a growth mindset in their learners they need to both know about it and hold one themselves. Participants in the study expressed the desire for their teachers to understand this distinction between a growth and fixed mindset, to create a classroom environment more conducive to fostering a positive learner mindset. For this to happen, a module introducing what the learner mindset meaning system framework is and how to enact a growth mindset needs to become a staple within teacher training programs. Furthermore, just knowing about learner mindsets is not enough – educators must also operationalize a growth mindset in their teaching pedagogy. This is because the mindset beliefs conveyed through teachers' words and actions play a large role in which mindset students are more likely to internalize (Dweck & Yeager, 2019; Haimovitz & Dweck, 2017; Yeager et al., 2014). Furthermore, the affordances (or lack of) available to learners within the specific classroom culture each teacher constructs—based on their own mindset views—create the possibility for a growth or fixed mindset to manifest (e.g., Hooper et al., 2016; Yeager et al.,

2022). Thus, teacher training and ongoing professional development should strive to instill a growth mindset in educators *and* show them how to incorporate it into their speech, classroom activities, assessment, and feedback.

Growth Mindset Teaching Practices

Belief that all students can improve and succeed

Teachers' mindset beliefs about their students both consciously and unconsciously influence their words and actions while teaching. Students' beliefs come to be shaped by these beliefs, leading to either growth or fixed mindset-oriented beliefs and practices in school, which ultimately impact their academic outcomes. These results (i.e., test scores and grades) can in turn influence teachers' beliefs about their students' intelligence and abilities, leading to either a positive or negative recursive cycle (see Figure 1). Therefore, it is important for educators to both believe in and communicate their belief that all students can learn and succeed through their words and actions. By tailoring their learning environment and their pedagogy accordingly, they can guide and demonstrate to learners that through effective learning strategies and dedicated effort students can grow and develop their intelligence and abilities.

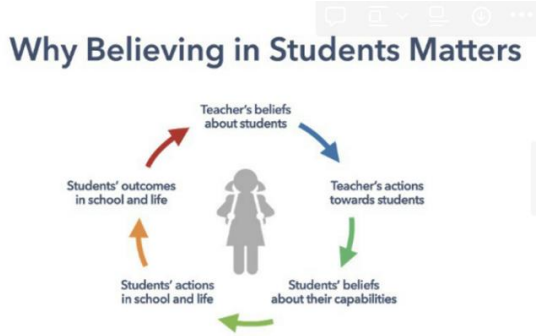

Figure 1. Why believing in students matters (Martin, 2021, p. 45)

Additionally, while teachers may at times have limited influence over institutional assessment practices, we always possess the ability to convey to students our unwavering belief in their capacity to learn. Actively communicating this belief while aligning our classroom practices to it can help buffer the potential negative impacts of grades or high-stakes testing, ensuring that our teaching methods consistently reinforce the notion that every student has the potential for continued growth and success (Ciani et al., 2010; Middleton & Perks, 2014). Additionally, research has shown that instructors who hold a growth mindset tend to frame learning collaboratively, emphasizing joint efforts to ensure understanding and providing support to students (e.g., "*Together we'll make sure you learn this*"). Conversely, fixed mindset-oriented educators often place the responsibility fully on students to improve (e.g., "*You need to work harder and study more*") (Hooper et al., 2016). Thus, educators should adopt a collaborative approach to learning, emphasizing their belief in students' ability while also providing the necessary support and scaffolding to help students acquire the learning strategies and skills needed for success.

Emphasize the learning process instead of final results

The extent to which educators orient their pedagogy towards performance or mastery goals and emphasize progress and learning or achievement and performance can result in students either developing a growth or fixed mindset orientation (e.g., Lou & Noels, 2019; Park et at., 2016; Rissanen et al., 2019). Both the existing literature and participants' responses in this study underscore that prioritizing results above all else increases the likelihood of instilling a fixed mindset orientation in students. As such, educators need to shift their focus towards the importance of the learning process. As much as possible, student comparisons, public rankings, and the use of standalone tests as the majority of students' grades should be eliminated. In lieu of

this, more holistic academic tasks, such as projects, learning portfolios, and assignment drafts should be utilized, fostering students' self-reflection on their strengths and weaknesses, and providing opportunities for incremental improvement.

This approach lessens the weight and importance of a single assessment negatively impacting students' final grade or detrimentally injuring their beliefs about their own intelligence or ability. Even if students encounter setbacks, it is not a definitive failure; collaborative efforts with their teacher can identify immediate next steps for enhanced success in subsequent phases. This can help reframe negative results as just a temporary snapshot of their current (and not innate) ability, and as the means to self-improvement. Moreover, it can also shift student focus more to learning as a process and help to mitigate poor learning strategies such as cramming and rote memorization, often utilized when tests are the predominant assessment method utilized. In contexts where engaging in performance-focused tasks are unavoidable, such as high-stakes examinations, teachers can still remind students of their learning goals and provide constructive feedback and support that emphasizes the connection between the test content and their current ability for further growth and development. Such pedagogical approaches can help better foster a more inclusive classroom culture where everyone's focus is not on performance but on deep and meaningful learning.

Foster a supportive learning environment that embraces mistakes

Cultivating a growth mindset also necessitates the establishment of a classroom culture where students perceive mistakes as a normal and integral to the learning process, freeing them from concerns about peer or teacher judgment and fostering a focus on reflection and improvement. To achieve this, educators should foster a warm, supportive, and safe learning environment to help students open up and not be afraid to share their thoughts or opinions freely.

Students' perceptions regarding whether their teachers genuinely care about them is one of the strongest predictors of their academic performance, with exceptional educators being caring, empathetic, and establishing a classroom culture where they respect and support students and students respect and support each other (e.g., Dean & Hubbell, 2012; Dweck et al., 2014). Therefore, successful educators build positive relationships, maintain high expectations, and consistently convey the message that improvement and growth are always achievable. Establishing such a supportive growth mindset environment not only diminishes the emotional impact of mistakes but also encourages students to actively engage with the material and tackle academic challenges with openness and resilience.

Provide concrete support and study strategies

In conjunction with creating an environment that normalizes mistakes and failures, educators also need to equip students with the necessary strategies and skills to effectively learn from such setbacks and ensure that their future efforts lead to improvement. This involves guiding students in developing resilience by teaching them adaptive coping mechanisms and stress management techniques. Furthermore, implementing short study skills workshops, time-management training, and goal-setting exercises can enable them to navigate academic challenges more effectively.

Additionally, educators should integrate formative assessment practices that provide timely and actionable feedback. This includes utilizing quizzes, discussions, and peer evaluations that allow students to gauge their understanding, identify misconceptions, and address gaps in their knowledge. By creating a supportive network where students feel comfortable seeking assistance and offering personalized feedback, educators play a pivotal role in helping students discern areas for improvement. Ultimately, the aim is to create an educational environment that

not only acknowledges the inevitability of setbacks, but actively supports students in turning these challenges into stepping stones for future success.

Provide effort praise instead of ability praise

Whether educators provide ability-focused or effort-focused praise can impact students' approach to learning and the mindset they ultimately come to hold. Emphasizing effort over innate abilities fosters a growth mindset, encouraging students to see challenges as opportunities for improvement, while ability-focused praise may inadvertently promote a fixed mindset, where students believe their intelligence is fixed and unchangeable (e.g., Mangels et al., 2006; Mueller & Dweck, 1998; Truax, 2018). Thus, educators should keep this in mind and consciously shift towards providing feedback on assignments and assessments that highlights students' efforts, focusing on specific and constructive comments on the strategies students employed, the dedication shown, and the progress made so far from where they began.

Alternative assessment methods

Findings from both this study and the existing literature have shown that negative social comparisons with others greatly influence the development of a fixed mindset belief in students (e.g., Dweck 2006, 2017; Dweck et al., 2014; Ommundsen, 2001). In addition to publicly announcing students' grades and rankings, another extremely common yet pernicious academic practice is that of grading on a curve. The grading curve rests on the misguided notion that implementing performance ratings enhances overall performance, yet it often has the opposite effect (Achor, 2018). By stipulating that only a limited number of students can achieve high grades, educators are essentially conveying the fixed mindset message that academic success is a constrained resource, not available to all. Such an assessment method can be even more detrimental when used at a higher-level university setting, which usually comprises students who

were at the top of their classes throughout junior and high school. When these students—who have been used to high grades their entire life—suddenly receive lower marks it can be a major blow to their confidence and self-esteem, especially if the reason for the lower grade is solely due to being compared to their peers.

The entire growth mindset meaning system is predicated on learners achieving academic and life success by learning to make incremental improvements based on reflecting on and shoring up mistakes and setbacks. In this study, many participants desired an alternative evaluation method centering mainly on comparing themselves to their past selves/results, emphasizing their individual efforts and incremental growth rather than social comparisons. Such a practice can better nurture a growth mindset and maintain students' motivation by enabling them to see their personal progress relative to themselves and not in competition with others.

Smaller class sizes

For teachers to successfully support students' learning and foster a growth mindset, it is necessary to utilize smaller class sizes. Japanese universities commonly employ large class sizes, even for specialized or language-related courses, which presents a formidable challenge for educators to adequately understand and address each learner's individual needs and growth. Improving the teacher-student ratio in classrooms can afford teachers the opportunity to invest more time and effort in each individual student's learning journey, further facilitating personalized teaching that considers the individuality and unique strengths of each student. It can also enable alternative assessment methods such as learning portfolios, group projects, or drafts of an assignment, rather than needing to overly rely on easy-to-administer standardized testing measures—based on a single snapshot in time of their intelligence/ability— comprising the majority of their grades. This shift promotes a more profound understanding of students,

enabling tailored feedback and support, and enhancing the likelihood of instilling a growth mindset that emphasizes effort over outcomes.

Developing students' academic identity & sense of purpose

Results from this study also revealed that it is crucial for university students to have a clear academic identity and positive sense of purpose, as it profoundly impacted their motivation, attitudes toward effort, and resilience in the face of challenges and setbacks. However, many of the participants lamented that they had little time to think about these things or explore their personal interests, goals, and passions within the standardized testing-focused curriculum of junior and high school. As such, it is essential for secondary schools and educators to create an environment that provides students with the necessary space and time to cultivate their individuality and determine their aspirations (beyond just admission to a prestigious institution) and sense of purpose in their future studies.

Educators can implement strategies such as incorporating personalized learning plans, encouraging self-reflection, and facilitating discussions about the broader purpose of education, as well as provide opportunities for students to explore a variety of subjects and connect classroom content to real-world applications. This can enhance their understanding of the relevance and personal meaning of their studies and aid them in figuring out their future university major and sense of purpose, which in turn will help foster and maintain a growth mindset-orientation upon entering university.

Growth Mindset Activities

Reflecting after assignments and assessments

A particular divergent point between growth and fixed mindset-oriented students is how they interpret mistakes and failures. As such, any classroom that seeks to instill and foster a

growth mindset in students must also ensure that it explicitly utilizes and incorporates into key assignments and assessments reflection opportunities, which allow students to consider in depth how they approached the assignment, what went well, and what gaps still exist. Once they have a clearer picture of this, they can then reassess their approach to learning and decide what is needed for next time, such as to put in more effort or time, to adjust their strategy, or to seek out additional help. By continually engaging in this reflection cycle after assignments and tests, students have a much better chance of making gains and improvements on subsequent assignments. Seeing that their development and growth is controllable and within their own hands will create a positive learning cycle where students reflect, improve, and reinforce their growth mindset beliefs that they can always improve.

Reflect on past triumphs and difficulties overcame

Humans naturally have a negativity bias which causes us to focus more on our weaknesses, mistakes, and failures rather than our achievements and accomplishments. As a means to help students shift from a fixed mindset to more of a growth mindset and bolster their grit and confidence, educators can have them create and maintain an *'Accomplishments List'*. In this list, students write down major academic accomplishments to date they are proud of, such as success on difficult assignments, tests, or courses, as well as other life challenges conquered. They then should refer to this list for motivation and inspiration whenever they are facing a new tough challenge, to recall the prior difficulties they struggled with yet ultimately overcame, reinforcing their belief in their ability to succeed and fostering a "positive feedback loop" (Limeri et al., 2020).

In conjunction with this, students should also create and maintain a *'Hardships Overcome List'*. This list comprises major academic setbacks, hardships, and failures they have encountered

thus far their lives, such as assignments, tests, and courses where the outcome fell short of their hopes, as well as other life challenges (e.g., relationship troubles, sickness and injuries, job failures). The purpose of this list is to increase students' resilience and aid them in more effectively recovering from setbacks and failures by having them recall difficult setbacks/failures that they have experienced and survived to date. In the moment setbacks can feel like the end of the world, but in hindsight they are often not as bad as they seemed, and in some cases actually blessings in disguise. Thus if possible, students should reflect on and strive to reframe how these temporary setbacks became or led to a new source of growth or benefit for them.

These exercises are effective as individual activities but can be strengthened even further by tapping into the powerful social influence of students' peers. Teachers who have created warm, safe, and supportive learning environments can occasionally have students use aspects of their lists for small group discussion activities or even short presentations. Hearing personal stories of their peers' academic difficulties and triumphs can help students realize that struggle is a common aspect of the learning process, and that intelligence and abilities are not fixed, but can be developed through effective learning strategies. In this way, educators and their peers can foster a belief in students that they all experience academic challenges but also have the capacity to overcome them and continually grow and improve.

Help students find and interact with growth mindset-oriented role models

Lastly, the existing literature and the findings of this study both have shown the importance of growth mindset role models on learners' own mindset orientations. Interacting and identifying with individuals who exemplify a growth mindset can serve as a powerful catalyst for students' own mindset development. These role models can provide tangible examples of perseverance, resilience, and a positive approach toward challenges, instilling in students the

belief that abilities can be developed through dedication and effort. As such, educators should strive to actively facilitate opportunities for students to discover and interact with such role models, whether amongst their peers, within their classes though the use of carefully selected media or videos, through guest speakers, or by encouraging students to explore real-world examples. By integrating growth mindset-oriented role models into the learning environment, educators contribute to shaping students' perspectives and reinforcing the value of cultivating a growth mindset.

One effective strategy is incorporating biographies of famous or successful individuals who overcame significant challenges on their path to success. Such biographies can have a profound impact on students, especially when the highlighted figure is someone they deeply admire or relate to. By delving into the life stories of these individuals, students gain valuable insights into the hurdles and setbacks these seemingly naturally talented people faced. These narratives can provide powerful examples of resilience, hard work, and ultimate triumph, dispelling the illusion of an easy journey to success. Ultimately, these stories serve as inspirational guides, encouraging students to persevere in the face of their own challenges and work diligently towards their goals. This can even be used as a presentation activity, with students each choosing and researching their own ‘Famous Failure’ growth mindset role model and showcasing their struggles and successes with their peers. Through carefully cultivated examples of famous individuals who have a growth mindset, believe in effort over natural intelligence/genius, who encountered mistakes/failed and overcame them in their pursuit of success, etc.

CHAPTER 8: De/limitations

Delimitations refer to the characteristics that demarcate the scope and define the specific boundaries of a study. These are usually within the researcher's control (Simon, 2011). The delimitations of this qualitative case study focused exclusively on understanding the learner mindset meaning systems of Japanese students at a single high-level national university in Japan. As is customary in qualitative research, the outcomes of this study are not meant to generalize to the entire population of (Japanese) university students. However, as discussed in the Educator Implications section, the findings of this study have value in sharing students' voices and learned experiences, offering insightful perspectives into learner mindsets within this specific context, and contributing valuable information to inform and enhance educator pedagogy.

There are several things that were beyond the purview of this specific study that could provide worthwhile insights, and thus inform future research designs. Firstly, as the focus of this study was only a high-level national university, future studies might involve participants from diverse university types or across various educational stages, such as primary and secondary schooling. This could enrich our understanding of how different educational environments contribute to shaping learner mindsets and influencing students' reactions to academic challenges and setbacks.

Secondly, this research centered on only Japanese students. As such, future studies could investigate the experiences of learners in different countries and cultures. Each culture carries unique sociocultural implications that may impact learner mindsets and their responses to academic challenges. Therefore, exploring the distinct cultural contexts and lived experiences of learners of other nationalities could yield rich insights which would not only enhance the depth of academic research, but also contribute to the development of culturally sensitive educational practices.

Finally, this study exclusively delved into the perspectives, beliefs, and experiences of students. Subsequent research endeavors may benefit from a more detailed exploration of the prominent key influential socializers identified in this study, notably family members, educators, and peers. Investigating how these influential figures shape students' learner mindsets through their words, beliefs, and actions could provide valuable insights into the dynamics of learner development.

There are also two notable limitations that merit attention. Firstly, participants shared their reflection insights to the learning modules retrospectively, relying on memories of past lived experiences, beliefs, feelings, and perceptions for their responses. Due to the nature of self-reporting, individual students' perspectives might be susceptible to recall bias. Thus readers should keep in mind that while the responses and insights shared were those most salient to the participants at the time of the study, the passage of time might have influenced or altered their recollections to some extent. Future studies could also incorporate real-time data collection methods, such as observations, to counterbalance this limitation and provide a more comprehensive understanding.

Second, findings were dependent upon the accuracy with which the selected participants portrayed their recollections in English, their second language, within their reflective writings and other collected data sources. This constraint may have limited the length or depth of some respondents' responses. As such, future studies can be conducted either in the participants first language (Japanese), or adopt a bilingual approach, enabling them to articulate their thoughts in both English and their native language. This approach could facilitate a more comprehensive exploration of learner mindsets by capturing the subtleties and nuances in participants' expressions of their academic and lived experiences.

CHAPTER 9: Conclusion

"The beliefs people construct determine their experience of their worlds and the way they think, feel and behave."

(Murphy & Gash, 2020, p. 90)

Institutional education seeks to adequately prepare students for both academic and future success. However, the dominant discourse(s) within the educational system can drastically shape views regarding learning, assessment methodologies, and success criteria. Within schools, students navigate two prevailing yet conflicting discourses—dubbed the promotional and restrictive spheres by Räty and colleagues (2004)—which play a crucial role in determining their learning beliefs, lived experiences, and academic performance. The promotional sphere prioritizes developing knowledge, skills, and competencies in students, instilling lifelong learning strategies, and fostering a belief in continual improvement. In contrast, the restrictive sphere centers around high-stakes testing and assessment practices, emphasizing the evaluation and measurement of students' current knowledge and abilities. This can perpetuate a culture of competition, rankings, and performance goals, ultimately shifting the focus of school away from students' learning and needs.

Within this restrictive discourse, students perceive their success through a limited lens, with their worth based on narrow definitions of intelligence and ability. Over time they come to develop the belief that their performance on assignments and tests are not just an indicator of their current skill and knowledge, but of their *inherent* and *lifelong* intelligence and ability. For students who struggle to obtain high scores and grades throughout their educational journey, this can lead to the gradual erosion of confidence and feelings of disheartenment, resulting in disengagement from the learning process and ultimately negatively impacting their academic performance, creating a self-perpetuating vicious cycle. Thus, this dominant discourse and its

practices counteract efforts to focus on the importance of the learning journey and to instill in every student a belief in their capacity for growth through dedicated effort.

Decades of research by Carol Dweck and others has revealed the critical role students' learner mindset beliefs also play throughout their education. Rather than a deficit model that attributes academic variance to inherent intelligence or ability, the concepts of fixed and growth mindset meaning systems emphasize instead the importance of students' beliefs. These beliefs shape academic behaviors and outcomes by influencing goal-setting and their responses to effort, challenges, setbacks, and failure, ultimately impacting persistence, motivation, and overall academic achievement. Whether students form a predominantly fixed or growth mindset orientation depends on the dominant discourses within their learning context and culture, and is thus shaped by the beliefs of those around them and their lived experiences.

While the restrictive sphere and its associated practices tend to promote fixed mindset beliefs, the promotional sphere of education is conducive to cultivating growth mindset beliefs among students. Moreover, explicitly teaching and striving to instill more of a growth mindset orientation in students can help serve as a buffer against the overemphasis on performance within the testing-focused restrictive sphere. Given the considerable impact that learner mindsets have on students' academic attitudes, performance, and overall success, better understanding its formation and how to foster a growth mindset in learners should become more of an explicit educational goal by practitioners.

However, students' learner mindsets are not products of individual cognition, but rather emerge from the broader sociocultural milieu, and are intricately shaped by various diverse sociocultural encounters and experiences throughout their lives. Thus, a sociocultural approach is necessary to explore the intricate relationship between the formation of students' learner

mindsets and the overarching sociocultural practices in their learning environments. A comprehensive understanding of these factors and their manifestation in students is crucial for guiding educational pedagogy and policy, and for implementing effective strategies to better foster the cultivation of a growth mindset in learners. Particularly, research within diverse non-WEIRD cultural contexts is imperative, as it can provide contextually-specific insights into how variations in beliefs and socialization practices contribute to differences in students' mindsets.

Towards this end, this study sought to holistically understand the learner mindsets of an underrepresented demographic, Japanese university students, through the lens of sociocultural theory. By analyzing students' reflection writings and end-of-semester interviews, it detailed insights into students' lived experiences, shedding light on how learner mindset/meaning systems manifested and highlighting the sociocultural factors participants identified as influential. It also strove to understand the impact of their mindset beliefs and behaviors on their learning and academic performance, with the dual purpose of enhancing support for student learning and contributing to teaching pedagogy.

This project's findings underscore the influential role of key socializers, particularly school and educators, in shaping students' perceptions of intelligence and ability through their words, actions, and the learning environment/culture they cultivate. Learner mindsets are intricately linked to the dominant discourse(s) enacted and valued within a learning context, which establishes specific cultural norms and expectations that shape students' learning beliefs and self-perceptions. Therefore, to better foster a growth mindset, educational contexts and socializers must create conducive environments and provide the necessary affordances to actively encourage this identity in students and effectively support them throughout their learning journey.

References

Achor, S. (2018). *Big potential: How transforming the pursuit of success raises our achievement, happiness, and well-being*. Currency.

Allan, E. G., & Driscoll, D. L. (2014). The three-fold benefit of reflective writing: Improving program assessment, student learning, and faculty professional development. *Assessing Writing*, *21*, 37-55.

Angen, M. J. (2000). Evaluating interpretive inquiry: Reviewing the validity debate and opening the dialogue. *Qualitative Health Research*, *10*(3), 378-395. Sage.

Arai, K. (2012). Gakushuu shidou youryou vs. daigaku nyuushi: Sono kattou no kiseki to ima [Course of Study vs. University entrance examinations: Trajectory of conflicts and current situations]. In the Center for Advancement of Higher Education, Tohoku University (Ed.), *Koutou gakkou gakushuu shidou youryou vs. daigaku nyuush*i [High school guidelines for the Course of Study vs. University entrance examinations system]. (pp. 7–37). Tohoku University Press.

Arimoto, M., Clark, I., Yamamoto, S., & Shinkawa, M. (2015). Cultural perspectives on classroom assessment: A path toward the "Japanese Assessment for Learning Network". *Annual Bulletin, Graduate School of Education, Tohoku University, 1*(1), 41-62.

Arnett, J. J. (2016). The neglected 95%: Why American psychology needs to become less American. In A. E. Kazdin (Ed.), *Methodological issues and strategies in clinical research* (p. 115–132). American Psychological Association. https://doi.org/10.1037/14805-008

Aronson, J., Fried, C. B., & Good, C. (2002). Reducing the effects of stereotype threat on African American college students by shaping theories of intelligence. *Journal of Experimental Social Psychology, 38*(2), 113–125. https://doi.org/10.1006/jesp.2001.1491

Atif, H., Peck, L., Connolly, M., Endres, K., Musser, L., Shalaby, M., ... & Shalaby, M. A. (2022). The impact of role models, mentors, and heroes on academic and social outcomes in adolescents. *Cureus*, *14*(7), 1-11.

Au, W. W. (2009). High-stakes testing and discursive control: The triple bind for non-standard student identities. *Multicultural Perspectives*, *11*(2), 65-71.

Aukerman, M., & Chambers Schuldt, L. (2015). Children's perceptions of their reading ability and epistemic roles in monologically and dialogically organized bilingual classrooms. *Journal of Literacy Research*, *47*(1), 115-145.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Prentice-Hall.

Bandura, A. (2009). Cultivate self-efficacy for personal and organizational effectiveness. In E. Locke, *Handbook of Principles of Organizational Behavior: Indispensable Knowledge for Evidence-Based Management* (pp. 179–200). John Wiley & Sons.

Bandura, A., & Barab, P. G. (1971). Conditions governing nonreinforced imitation. *Developmental Psychology*, *5*(2), 244-255.

Barnes, N., & Fives, H. (2016). Creating a context for growth-focused assessment. *Middle School Journal, 47*(5), 30-37.

Bedford, S. (2017). Growth mindset and motivation: a study into secondary school science learning. *Research Papers in Education, 32*(4), 424-443.

Bernardo, A., Esteban, M., Fernández, E., Cervero, A., Tuero, E., & Solano, P. (2016). Comparison of personal, social and academic variables related to university drop-out and persistence. *Frontiers In Psychology*, *7(*1610), 1-9.

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*, 246–263.

Blake, B. & Pope, T. (2008). Developmental Psychology: Incorporating Piaget's and Vygotsky's Theories in classrooms. *Journal of Cross-Disciplinary Perspectives in Education*, *1*(1), 59-67.

Bleakley, A. (1999). From reflective practice to holistic reflexivity. *Studies in Higher Education, 24*(3), 315–330. https://doi.org/10.1080/03075079912331379925

Boardman, S. (2021). *Everyday vitality: Turning stress into strength.* Penguin Life.

Bowen, J. A., & Watson, C. E. (2017). *Teaching naked techniques: A practical guide to designing better classes*. John Wiley & Sons.

Bradbury, A. (2019). Making little neo-liberals: The production of ideal child/learner subjectivities in primary school through choice, self-improvement and 'growth mindsets'. *Power and Education*, *11*(3), 309-326.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77-101.

Braun, V., & Clarke, V. (2013). *Successful qualitative research: A practical guide for beginners*. Sage.

Braun, V., & Clarke, V. (2019a). Reflecting on reflexive thematic analysis. *Qualitative Research in Sport, Exercise & Health*, *11*(4), 589–597.

Braun, V., & Clarke, V. (2020). One size fits all? What counts as quality practice in (reflexive) thematic analysis? *Qualitative research in psychology*, *18*(3), 328-352.

Broda, M., Yun, J., Schneider, B., Yeager, D. S., Walton, G. M., & Diemer, M. (2018). Reducing inequality in academic success for incoming college students: A randomized trial of growth mindset and belonging interventions. *Journal of Research on Educational Effectiveness*, *11*(3), 317-338.

Broderick, P. C., & Blewitt, P. (2010). T*he life span: Human development for helping professionals*. Pearson Education.

Brooks, J., & King, N. (2014). Doing template analysis: Evaluating an end of life care service. *Sage Research Methods Cases,* 1-20.

Brooks, J., McCluskey, S., Turley, E., & King, N. (2015). The utility of template analysis in qualitative psychology research. *Qualitative Research in Psychology*, *12*(2), 202-222.

Brophy, J. (2004). *Motivating students to learn* (2nd ed.). Routledge.

Bühler, D., Sharma, R., & Stein, W. (2020). Occupational Attainment and Earnings in Southeast Asia: The Role of Non-cognitive Skills. *Labour Economics, 67(*101913), 1-23.

Burchard, B. (2017). *High performance habits: How extraordinary people become that way*. Hay House, Inc.

Burnette, J. L., O'Boyle, E. H., VanEpps, E. M., Pollack, J. M., & Finkel, E. J. (2013). Mind-sets matter: A meta-analytic review of implicit theories and self-regulation. *Psychological Bulletin*, 139, 655–701.

Busselle, R., & Bilandzic, H. (2008). Fictionality and perceived realism in experiencing stories: A model of narrative comprehension and engagement. *Communication theory*, *18*(2), 255-280.

Buzzetto-Hollywood, N., Mitchell, B. C., & Hill, A. J. (2019). Introducing a mindset intervention to improve student success. *Interdisciplinary Journal of e-Skills and Lifelong Learning, 15*, 135-155. https://doi.org/10.28945/4465

Camden, B. (2014, December 19). *Character education funding from Nicky Morgan worth 4.5m*. Schools Week. Retrieved May 24, 2022, from https://schoolsweek.co.uk/morgan-boosts-character-funding-with-extra-4-5m/

Čeplak, M. M. (2012). The individualisation of responsibility and school achievement. *Sociologický časopis/Czech Sociological Review*, *48*(06), 1093-1114.

Chen, X., Lake, J., & Padilla, A. M. (2021). Grit and motivation for learning English among Japanese university students. *System*, *96(*102411), 1-11.

Cheng, L., Watanabe, Y., & Curtis, A. (Eds.). (2004). *Washback in language testing: Research contexts and methods*. Lawrence Erlbaum Associates.

Chetty, L. (2013). Innovative interpretive qualitative case study research method aligned with systems theory for physiotherapy and rehabilitation research A review of the

methodology. *African Journal of Physiotherapy and Rehabilitation Sciences, 5*(1-2), 40-44.

Ciani, K. D., Middleton, M. J., Summers, J. J., & Sheldon, K. M. (2010). Buffering against performance classroom goal structures: The importance of autonomy support and classroom community. *Contemporary educational psychology*, *35*(1), 88-99.

Clark, M. R. (2005). Negotiating the freshman year: Challenges and strategies among first-year college students. *Journal of College Student Development, 46*(3), 296-316.

Clarke, V., & Braun, V. (2013). Teaching thematic analysis: Overcoming challenges and developing strategies for effective learning. *The Psychologist*, 26, 120–123.

Cohen, G. L., Garcia, J., Purdie-Vaughns, V., Apfel, N., & Brzustoski, P. (2009). Recursive processes in self-affirmation: Intervening to close the minority achievement gap. *Science, 324*(5925), 400-403.

Cooper, H., Robinson, J. C., & Patall, E. A. (2006). Does homework improve academic achievement? A synthesis of research. *Review of Educational Research*, *76*(1), 1-62. https://doi.org/10.3102/00346543076001001

Cornbleth, C. (2008). Echo effects and curriculum change. *Teachers College Record*, *110*(10), 2148-2171.

Covarrubias, R., Laiduc, G., & Valle, I. (2019). Growth messages increase help-seeking and performance for women in STEM. *Group Processes & Intergroup Relations*, *22*(3), 434-451.

Creswell, J. W. (2009). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches (3rd ed.).* Sage Publications.

Creswell, J.W. & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th edition). Sage.

Cruess, S. R., Cruess, R. L., & Steinert, Y. (2008). Role modelling—making the most of a powerful teaching strategy. *British Medical Journal*, *336*(7646), 718-721.

Csikszentmihalyi, M. (1990). Literacy and intrinsic motivation. *Daedalus, 119*(2), 115–140.

Cury, F., Elliot, A. J., Da Fonseca, D., & Moller, A. C. (2006). The social-cognitive model of achievement motivation and the 2 x 2 achievement goal framework. *Journal of Personality and Social Psychology, 90*(4), 666–679. https://doi.org/10.1037/0022-3514.90.4.666

Damon, W. (2008). *The path to purpose: helping our children find the calling in life*. The Free Press.

Datu, J. A. D., Valdez, J. P. M., & King, R. B. (2016). Perseverance counts but consistency does not! Validating the short grit scale in a collectivist setting. *Current Psychology, 35*(1), 121-130.

Datu, J. A. D., Yuen, M., & Chen, G. (2017). Grit and determination: A review of literature with implications for theory and research. *Journal of Psychologists and Counsellors in Schools, 27*(2), 168-176.

Davis, V. W. (2017). Error reflection: Embracing growth mindset in the general music classroom. *General Music Today*, *30*(2), 11-17.

Dean, C. B., & Hubbell, E. R. (2012). *Classroom instruction that works: Research-based strategies for increasing student achievement*. Ascd.

Dean, J., Furness, P., Verrier, D., Lennon, H., Bennett, C., & Spencer, S. (2018). Desert island data: An investigation into researcher positionality. *Qualitative Research*, *18*(3), 273–289.

Dembo, M. H. & Seli, H. (2013). *Motivation and learning strategies for college success: A focus on self-regulated learning*. Routledge.

Denzin, N. K., & Lincoln, Y. S. (Eds.). (2011). *The Sage handbook of qualitative research*. Sage.

Diener, C. I., & Dweck, C. S. (1978). An analysis of learned helplessness: Continuous changes in performance, strategy, and achievement cognitions following failure. *Journal of Personality and Social Psychology, 36*(5), 451–462. https://doi.org/10.1037/0022-3514.36.5.451

Deiner, C. I., & Dweck, C. S. (1980). An analysis of learned helplessness: The process of success. *Journal of Personality and Social Psychology*, *31*, 674-685.

Dijkstra, P., Kuyper, H., Van der Werf, G., Buunk, A. P., & Van der Zee, Y. G. (2008). Social comparison in the classroom: A review. *Review of Educational Research, 78*(4), 828-879. https://doi.org/10.3102/0034654308321210

Dodge, A., & Silverberg, R. (2015). Dominant Discourse, Educational Research, and the Hegemony of Test Scores: If You Only Have a Hammer, Every Problem Looks Like a Nail. *Critical Education*, *6*(1).

Doidge, N. (2007). *The brain that changes itself: Stories of personal triumph from the frontiers of brain science*. Penquin Books, Ltd.

Dubinsky, J. (2010). Neuroscience education for prekindergarten-12 teachers. *The Journal of Neuroscience, 30*, 8057-8060.

Dumke, E. K., Tyndall, C., Naff, D., Crowder, A., & Cauley, K. M. (2018). A qualitative exploration of pre-health students' perceptions of academic success and persistence. *NACADA Journal, 38*(2), 5-19.

Dweck, C. S. (1986). Motivational processes affecting learning. *American Psychologist, 41*(10), 1040–1048. https://doi.org/10.1037/0003-066X.41.10.1040

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

Dweck, C. S. (2006). *Mindset.* Random House.

Dweck C. S. (2012). *Mindset: How you can fulfill your potential.* Robinson

Dweck, C. S. (2017). *Mindset. Updated edition: Changing the way you think to fulfil your potential.* Robinson.

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., 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.

Dweck, C. S., & Sorich, L. (1999). Mastery-oriented thinking. *Coping*, *11*, 232-251.

Dweck, C. S., Walton, G. M., & Cohen, G. L. (2014). Academic tenacity: Mindsets and skills that promote long-term learning. *Bill & Melinda Gates Foundation*.

Dweck, C. S., & Yeager, D. S. (2019). *Mindsets: A view from two eras. Perspectives on Psychological Science, 14*, 481-496. https://doi.org/10.1177/1745691618804166

Elbow, P. (1998). *Writing with power: Techniques for mastering the writing process*. Oxford University Press.

Emmel, N. (2014). *Sampling and Choosing cases in Qualitative Research: A Realist Approach*. Sage.

Farrington, C. A., Roderick, M., Allensworth, E., Nagaoka, J., Keyes, T. S., Johnson, D. W., & Beechum, N. O. (2012). *Teaching adolescents to become learners: The role of noncognitive factors in shaping school performance*. University of Chicago, Consortium on Chicago School Research.

Farruggia, S. P., Han, C. W., Watson, L., Moss, T. P., & Bottoms, B. L. (2018). Noncognitive factors and college student success. Journal of College Student Retention: Research, *Theory & Practice, 20*(3), 308-327.

Faulkner, R., Jang, M., Liu, X., Duan, X., Sailor, K., Kim, J., . . . Cheng, H. (2008). *Proceedings of the National Academy of Sciences*. Development of hippocampal mossy fiber synaptic outputs by new neurons in the adult brain. *105*(37), 14157-14162. Retrieved from http://www.pnas.org/content/105/37/14157.full on September 9, 2022.

Fitzgerald, C. J., & Laurian-Fitzgerald, S. M. (2016). Helping students enhance their grit and growth mindsets. *Journal Plus Education / Educatia Plus, 14*(2), 52-67.

Fontana, A., & Frey, J.H. (2000). The interview: From structured questions to negotiated text. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of Qualitative Research* (2nd ed., pp. 645–672). Sage Publications.

Fraser, D. M. (2018). An exploration of the application and implementation of growth mindset principles within a primary school. *British Journal of Educational Psychology, 88*(4), 645-658.

Freeman, M. (2016). *Modes of thinking for qualitative data analysis*. Routledge.

Gallup-Purdue. (2014). *Great jobs great lives: The 2014 Gallup-Purdue index report.* Gallup.

García, E. (2014). The need to address non-cognitive skills in the education policy agenda. In *Non-cognitive skills and factors in educational attainment* (pp. 31–64). Brill Sense.

Gash, H., & Conway, P. (1997). Images of heroes and heroines: How stable?. *Journal of Applied Developmental Psychology*, *18*(3), 349-372.

Gergen, K. (2002). *Second opinion: An introduction to health sociology* (2nd ed.). Oxford University Press.

Godin, S. (2011). *Linchpin: Are you indispensable?*. Penguin.

Good, C., Aronson, J., & Inzlicht, M. (2003). Improving adolescents' standardized test performance: An intervention to reduce the effects of stereotype threat. *Journal of Applied Developmental Psychology, 24*, 645–662.

Goodman, P. (2009, September 6). *Failure Offers Lessons Japan Would Rather Forget.* New York Times. https://www.nytimes.com/2009/09/06/weekinreview/06goodman.html

Goodnow, C. (1992) Strengthening the Links Between Educational Psychology and the Study of Social Contexts. *Educational Psychologist, 27*(2), 177-196.

Gottfredson, L. S. (1997). Mainstream science on intelligence: An editorial with 52 signatories, history, and bibliography. *Intelligence*, *24*(1), 13-23.

Goyer, J. P., Cohen, G. L., Cook, J. E., Master, A., Apfel, N., Lee, W., ... & Walton, G. M. (2019). Targeted identity-safety interventions cause lasting reductions in discipline citations among negatively stereotyped boys. *Journal of Personality and Social Psychology*, *117*(2), 229-259.

Gudykunst, W. B., Matsumoto, Y., Ting-Toomey, S., Nishida, T., Kim, K., & Heyman, S. (1996). The influence of cultural individualism-collectivism, self-construals, and individual values on communication styles across cultures. *Human Communication Research, 22*, 510–543.

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

Gutman, L. M., & Schoon, I. (2013). The impact of non-cognitive skills on outcomes for young people. *Education Endowment Foundation, 59*(22.2), 1-59.

Guy-Evans, O. (2020, Nov 09). *Bronfenbrenner's ecological systems theory*. Simply Psychology. www.simplypsychology.org/Bronfenbrenner.html

Hagger, M. S., Rentzelas, P., & Chatzisarantis, N. L. (2014). Effects of individualist and collectivist group norms and choice on intrinsic motivation. *Motivation and Emotion, 38*(2), 215–223.

Haimovitz, K., & Dweck, C. S. (2016). What predicts children's fixed and growth intelligence mind-sets? Not their parents' views of intelligence but their parents' views of failure. *Psychological science*, *27*(6), 859-869.

Haimovitz, K., & Dweck, C. S. (2017). The origins of children's growth and fixed mindsets: New research and a new proposal. *Child development*, *88*(6), 1849-1859.

Haimovitz, K., Wormington, S. V., & Corpus, J. H. (2011). Dangerous mindsets: How beliefs about intelligence predict motivational change. *Learning and Individual Differences*, *21*(6), 747-752.

Hargreaves, E., Quick, L., & Buchanan, D. (2021). Systemic threats to the growth mindset: classroom experiences of agency among children designated as 'lower-attaining'. *Cambridge Journal of Education, 51*(3), 283-299.

Hattie, J. (2008). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement*. Routledge.

Hayes, N., O'Toole, L., & Halpenny, A. M. (2017). *Introducing Bronfenbrenner: A guide for practitioners and students in early years education*. Taylor & Francis.

Hecht, C. A., Yeager, D. S., Dweck, C. S., & Murphy, M. C. (2021). Beliefs, affordances, and adolescent development: Lessons from a decade of growth mindset interventions. In *Advances in child development and behavior* (Vol. 61, pp. 169-197). JAI.

Heckman, J. J., & Kautz, T. (2013). Fostering and measuring skills: Interventions that improve character and cognition. *IZA Discussion Paper*, *7750*, 1-125.

Heine, S. J., Kitayama, S., Lehman, D. R., Takata, T., Ide, E., Leung, C., & Matsumoto, H. (2001). Divergent consequences of success and failure in Japan and North America: An investigation of self-improving motivations and malleable selves. *Journal of Personality and Social Psychology, 81*(4), 599–615. https://doi.org/10.1037/0022-3514.81.4.599.

Henrich, J., Heine, S. J., & Norenzayan, A. (2010). Most people are not WEIRD. *Nature*, *466*(7302), 29.

Henderson, V. L., & Dweck, C. S. (1990). Achievement and motivation in adolescence: A new model and data. In S. Feldman & G. Elliott (Eds.) *At the threshold: The developing adolescent*. Harvard University Press.

Hendry, L. B., Roberts, W., Glendinning, A., & Coleman, J. C. (1992). Adolescents' perceptions of significant individuals in their lives. *Journal of adolescence*, *15*(3), 255-270.

Hoeken, H., Kolthoff, M., & Sanders, J. (2016). Story perspective and character similarity as drivers of identification and narrative persuasion. *Human Communication Research*, *42*(2), 292-311.

Hong, Y., Chiu, C., Dweck, C. S., Lin, D. M.-S., & Wan, W. (1999). Implicit theories, attributions, and coping: A meaning system approach. J*ournal of Personality and Social Psychology, 77*(3), 588–599. https://doi.apa.org/doiLanding?doi=10.1037%2F0022-3514.77.3.588

Hooper, S. Y., Yeager, D. S., Haimovitz, K., Wright, C., & Murphy, M. C. (2016). Creating a classroom incremental theory matters. But it's not as straightforward as you might think. In *Poster presented at the biennial meeting of the Society for Research on Adolescence, Baltimore, MD*.

Howarth, C. (2006). A social representation is not a quiet thing: Exploring the critical potential of social representations theory. *The British Journal of Social Psychology 45*(1), 65–86. https://doi.org/10.1348/014466605X43777.

Hoyert, M., & O'Dell, C. (2008). Goal orientation and the aftermath of an academic failure. *International Journal of Learning, 15*(3), 245–251.

Hseih, H-F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research*, *15*, 1277–1288.

Huang, X., & Kalman, C. S. (2012). A case study on reflective writing. *Journal of College Science Teaching*, *42*(1), 92-99.

Hussein, H. (2018). Examining the effects of reflective journals on students' growth mindset: A case study of tertiary level EFL students in the United Arab Emirates. *IAFOR Journal of Education*, *6*(2), 33-50.

Ittoku, T. (2020, May 26). *Transforming Japan's Conformist Education System*. Nippon.com. https://www.nippon.com/en/japan-topics/g00831/

Jackson, C., & Nyström, A. S. (2015). 'Smart students get perfect scores in tests without studying much': why is an effortless achiever identity attractive, and for whom is it possible? *Research Papers in Education*, *30*(4), 393-410.

Jasper, M. A. (2005). Using reflective writing within research. *Journal of Research in Nursing*, *10*(3), 247-260.

Jensen, F. E. & Nutt, A. E. (2015). *The Teenage Brain: A Neuroscientist's Survival Guide to Raising Adolescents and Young Adults*. Harper.

Jose, P. E., & Bellamy, M. A. (2012). Relationships of parents' theories of intelligence with children's persistence/learned helplessness: A cross-cultural comparison. *Journal of Cross-Cultural Psychology, 43*, 999–1018. https://doi.org/10.1177/0022022111421633

Kamins, M. L., & Dweck, C. S. (1999). Person versus process praise and criticism: Implications for contingent self-worth and coping. *Developmental Psychology, 35*(3), 835–847. https://doi.org/10.1037/0012-1649.35.3.835.

Kärkkäinen, R., Räty, H., & Kasanen, K. (2008). Children's notions of the malleability of their academic competencies. *Social Psychology of Education*, *11*(4), 445-458.

Keaney, M. (2014, December 2). *Why the Growth Mindset is the Only Way to Learn.* Edudemic. https://schoolleadership20.com/profiles/blogs/why-the-growth-mindset-is-the-only-way-to-learn-by-edudemic-staff

Kelly, G. A. (1955). *The psychology of personal constructs: A theory of personality.* Routledge.

Keown, S., & Bourke, B. (2020). A qualitative investigation of fixed versus growth mindsets of third and fourth grade students. *Education*, *140*(2), 51-58.

Kikuchi, K., & Sakai, H. (2009). Japanese learners' demotivation to study English: A survey study. *JALT Journal, 31*(2), 183–204.

King, R. B. & McInerney, D. M. (2014). Culture's consequences on student motivation: Capturing cross-cultural universality and variability through personal investment theory. *Educational Psychologist*, *49*(3), 175-198.

King, R. B. (2022). Sociocultural and ecological perspectives on achievement motivation. *Asian Journal of Social Psychology*, *25*(3), 433-448.

Kobayashi, E., Kerbo, H., & Sharp, S. F. (2010). Differences in individualistic and collectivistic tendencies among college students in Japan and the United States. *International Journal of Comparative Sociology, 51,* 59–84.

Kobayashi, E., & Farrington, D. P. (2020). Why is student deviance lower in Japan than in the United States?: Influences of individual, parental, peer, social, and environmental factors. *International Criminal Justice Review*, *30*(4), 365-385.

Korstange, R. (2016). Developing growth mindset through reflective writing. *Journal of Student Success and Retention*, *3*(1), 1-26.

Kroeper, K. M., Fried, A. C., & Murphy, M. C. (2022). Towards fostering growth mindset classrooms: Identifying teaching behaviors that signal instructors' fixed and growth mindsets beliefs to students. *Social Psychology of Education*, 1-28.

Kuramoto, N., & Koizumi, R. (2018). Current issues in large-scale educational assessment in Japan: Focus on national assessment of academic ability and university entrance examinations. *Assessment in Education: Principles, Policy & Practice, 25*(4), 415-433.

Kwek, A., Bui, H. T., Rynne, J., & So, K. K. F. (2013). The impacts of self-esteem and resilience on academic performance: An investigation of domestic and international hospitality and

tourism undergraduate students. *Journal of Hospitality & Tourism Education, 25*(3), 110-122.

Laurell, J., Seitamaa, A., Sormunen, K., Seitamaa-Hakkarainen, P., Korhonen, T., & Hakkarainen, K. (2021). A Socio-Cultural Approach to Growth-Mindset Pedagogy: Maker-Pedagogy as a Tool for Developing the Next-Generation Growth Mindset. In *Good Teachers for Tomorrow's Schools* (pp. 296-312). Brill.

Lee, K. (1996). A study of teacher responses based on their conceptions of intelligence. *The Journal of Classroom Interaction*, 1-12.

Leung, R. C. Y. (2018). Psychological interventions to foster growth mindsets among Japanese university EFL learners. *The Faculty of Letters of Jissen Women's University Annual Reports of Studies*, *60*, 10-18.

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.

Lin-Siegler, X., Dweck, C. S., & Cohen, G. L. (2016). Instructional interventions that motivate classroom learning. *Journal of Educational Psychology, 108*(3), 295–299. https://doi.org/10.1037/edu0000124

Loo, D. B., & Sulankey, A. K. (2019). A qualitative meta-synthesis of studies on learner reflections: Lessons for English language learner reflection. *rEFLections*, *26*(1), 58-77.

Lou, N. M., & Noels, K. A. (2016). Changing language mindsets: Implications for goal orientations and responses to failure in and outside the second language classroom. *Contemporary Educational Psychology*, *46*, 22-33.

Lou, N. M., & Noels, K. A. (2019). Promoting growth in foreign and second language education: A research agenda for mindsets in language learning and teaching. *System*, *86*, 102126, p. 1-12.

Lucas, B., & Spencer, E. (2018). *Developing Tenacity: Teaching learners how to persevere in the face of difficulty (Pedagogy for a Changing World series)*. Crown House Publishing Ltd.

Mangels, J. A., Butterfield, B., Lamb, J., Good, C., & Dweck, C. S. (2006). Why do beliefs about intelligence influence learning success? A social cognitive neuroscience model. *Social Cognitive and Affective Neuroscience, 1*, 75–86.

Markus, H. R., & Kitayama, S. (2010). Cultures and selves: A cycle of mutual constitution. *Perspectives on Psychological Science*, *5*(4), 420-430.

Martin, K. (2021). *Evolving education: Shifting to a learner-centered paradigm*. Impress.

Martschenko, D. (2017, October 12). *IQ tests have a dark, controversial history - but they're finally being used for good*. Business Insider. Retrieved September 8, 2022, from https://www.businessinsider.com/iq-tests-dark-history-finally-being-used-for-good-2017-10

May, C., & Finch, T. (2009). Implementing, embedding, and integrating practices: An outline of normalization process theory. *Sociology*, *43*(3), 535-554.

McCaslin, M. (2009). Co-regulation of student motivation and emergent identity. *Educational psychologist*, *44*(2), 137-146.

McClelland, D. C. (1985). How motives, skills, and values determine what people do. *American Psychologist*, *40*(7), 812.

McCluskey, S., Brooks, J., King, N., & Burton, K. (2014). Are the treatment expectations of significant others' psychosocial obstacles to work participation for those with persistent low back pain? *Work: A Journal of Prevention, Assessment & Rehabilitation, 48*(3), 391-398.

McKnight, P. E., & Kashdan, T. B. (2009). Purpose in life as a system that creates and sustains health and well-being: An integrative, testable theory. *Review of General Psychology, 13*, 242–251.

Mercer, S., & Ryan, S. (2010). A mindset for EFL: Learners' beliefs about the role of natural talent. *ELT Journal*, *64*(4), 436-444.

Merino, A., Jooste, S., & Vermeulen, K. (2019). Developing non-cognitive skills in part-time students at a South African university: Overcoming negativity and supporting behavioural change. *South African Journal of Higher Education, 33*(6), 215–232. https://doi-org.proxyiub.uits.iu.edu/10.20853/33-6-2969

Merriam, S. B. (2009). *Qualitative research: A guide to design and implementation.* Jossey-Bass.

Merriam, S. B., & Tisdell, E. J. (2015). *Qualitative research: A guide to design and implementation*. John Wiley & Sons.

MEXT. (2014a). *Atarashii jidai ni fusawashii koudai setsuzoku no jitsugen ni muketa koutou gakkou kyouiku, daigaku kyouiku, daigaku nyuugakusha senbatsu no ittaiteki kaikaku nitsuite—Subete no wakamono ga yume ya mokuhyou wo mebukase mirai ni hana sakaseru tameni: Toushin* [On integrated reforms in high school and university education and university entrance examination aimed at realizing a high school and university articulation system appropriate for a new era— Creating a future for the realization of the dreams and goals of all young people: Report]. Retrieved from http://www.mext.go.jp/b_menu/shingi/chukyo/chukyo0/toushin/1354191.htm (for the abbreviated version in English, see http://www.mext.go.jp/english/topics/1356088.htm)

Middleton, M., & Perks, K. (2014). *Motivation to learn: Transforming classroom culture to support student achievement*. Corwin Press.

Moon, J. (2001). PDP working paper 4: Reflection in higher education learning. *Higher Education Academy*, 1-25.

Morrison, G. M., & Allen, M. R. (2007). Promoting student resilience in school contexts. *Theory into Practice, 46*(2), 162–169.

Mueller, C. M., & Dweck, C. S. (1998). Praise for intelligence can undermine children's motivation and performance. *Journal of Personality and Social Psychology, 75*(1), 33–52.

Muenks, K., Miele, D. B., Ramani, G. B., Stapleton, L. M., & Rowe, M. L. (2015). Parental beliefs about the fixedness of ability. *Journal of Applied Developmental Psychology*, *41*, 78-89.

Muhammad, S. (2023, September 28). *Root Causes of Fear of Failure: Japanese & Chinese wisdom*. LinkIn. https://www.linkedin.com/pulse/root-causes-fear-failure-japanese-chinese-wisdom-sarfaraz-muhammad?trk=article-ssr-frontend-pulse_more-articles_related-content-card

Murphy, F., & Gash, H. (2020). I Can't Yet and Growth Mindset. *Constructivist Foundations, 15*(2), 83-94.

Murphy, M. C., & Dweck, C. S. (2010). A culture of genius: How an organization's lay theory shapes people's cognition, affect, and behavior. *Personality and Social Psychology Bulletin*, *36*(3), 283-296.

Muthukrishna, M., Bell, A. V., Henrich, J., Curtin, C. M., Gedranovich, A., McInerney, J., & Thue, B. (2020). Beyond Western, Educated, Industrial, Rich, and Democratic (WEIRD) psychology: Measuring and mapping scales of cultural and psychological distance. *Psychological science, 31*(6), 678-701.

Nishimura, T., & Sakurai, S. (2017). Longitudinal changes in academic motivation in Japan: Self-determination theory and East Asian cultures. *Journal of Applied Developmental Psychology*, *48*, 42-48.

Nolen, S. B., & Haladyna, T. M. (1990). Personal and environmental influences on students' beliefs about effective study strategies. *Contemporary Educational Psychology, 15*, 116–130. https://linkinghub.elsevier.com/retrieve/pii/0361476X9090011O

Nussbaum, A. D., & Dweck, C. S. (2008). Defensiveness versus remediation: Self-theories and modes of self-esteem maintenance. *Personality and Social Psychology Bulletin, 34*(5), 599–612. https://doi.org/10.1177/0146167207312960

Okamoto, T., Soga, N., Kumagai, T., & Arai, H. (2016, August). Realities and ideals of competencies: The perceptual gaps between companies and university students. In *Proceedings of the 3rd Multidisciplinary International Social Networks Conference on Social Informatics 2016, Data Science 2016 (pp. 1-8).*

Ommundsen, Y. (2001). Students' implicit theories of ability in physical education classes: The influence of motivational aspects of the learning environment. *Learning Environments Research, 4*(2), 139-158.

Park, D., Gunderson, E. A., Tsukayama, E., Levine, S. C., & Beilock, S. L. (2016). Young children's motivational frameworks and math achievement: Relation to teacher-reported instructional practices, but not teacher theory of intelligence. *Journal of Educational Psychology, 108*, 300–313. doi:10.1037/edu0000064

Pascarella, E. T., & Terenzini, P. T. (2005). *How College Affects Students: A Third Decade of Research (Volume 2).* Jossey-Bass.

Patton, M. Q. (2002). *Qualitative research and evaluation methods*. 3rd Edn. Sage.

Patton, M. Q. (2015). *Qualitative research and evaluation methods*. 4th Edn. Sage.

Paunesku, D., Walton, G. M., Romero, C., Smith, E. N., Yeager, D. S., & Dweck, C. S. (2015). Mind-set interventions are a scalable treatment for academic underachievement. *Psychological Science, 26*, 784–793. doi:10.1177/0956797615571017

Polirstok, S. (2017). Strategies to improve academic achievement in secondary school students: Perspectives on grit and mindset. *SAGE Open*, *7*(4), 2158244017745111.

Polkinghorne, D. E. (2005). Language and meaning: Data collection in qualitative research. *Journal of Counseling Psychology*, *52*, 137–145.

Pomerantz, E. M., & Kempner, S. G. (2013). Mothers' daily person and process praise: Implications for children's theory of intelligence and motivation. *Developmental Psychology, 49*, 2040–2046. doi:10.1037/a0031840

Porpora, D. V. (1996, June). Personal heroes, religion, and transcendental metanarratives. In *Sociological Forum* (Vol. 11, pp. 209-229). Kluwer Academic Publishers-Plenum Publishers.

Power, S., & Smith, K. (2017). 'Heroes' and 'villains' in the lives of children and young people. *Discourse: Studies in the Cultural Politics of Education*, *38*(4), 590-602.

Pressman, S. D., & Cohen, S. (2005). Does positive affect influence health? *Psychological Bulletin, 131*, 925–971.

Price-Mitchell, M. (2016). How Role Models Influence Youth Strategies for Success. *Roots of Action.* https://www.rootsofaction.com/role-models-youth-strategies-success/.

Rattan, A., Good, C., & Dweck, C. S. (2012). "It's ok—Not everyone can be good at math": Instructors with an entity theory comfort (and demotivate) students. *Journal of Experimental Social Psychology,*

Räty, H., Kasanen, K., Kiiskinen, J., Nykky, M., & Atjonen, P. (2004). Childrens' notions of the malleability of their academic ability in the mother tongue and mathematics. *Scandinavian Journal of Educational Research*, *48*(4), 413-426.

Rear, D. (2011). Mixed messages: Discourses of education in policy speeches to the Japanese Diet. *Asia Pacific Journal of Education*, *31*(2), 129-142.

Richardson, G., & Maltby, H. (1995). Reflection-on-practice: Enhancing student learning. *Journal of advanced nursing*, *22*(2), 235-242.

Rissanen, I., Kuusisto, E., Tuominen, M., & Tirri, K. (2019). In search of a growth mindset pedagogy: A case study of one teacher's classroom practices in a Finnish elementary school. *Teaching and teacher education*, *77*, 204-213.

Robins, R. W., & Pals, J. L. (2002). Implicit self-theories in the academic domain: Implications for goal orientation, attributions, affect, and self-esteem change. *Self and Identity, 1*(4), 313–336. https://doi.org/10.1080/15298860290106805.

Rogers, C. R. (1969). *Freedom to Learn.* Charles E. Merrill Publishing and Co.

Romero, C., Master, A., Paunesku, D., Dweck, C. S., & Gross, J. J. (2014). Academic and emotional functioning in middle school: The role of implicit theories. *Emotion, 14*(2). 227–234.

Romero, T. (2020, April 28). The Japanese Trap of the Glorious Failure. DisruptingJapan. https://www.disruptingjapan.com/the-japanese-trap-of-the-glorious-failure/

Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55*(1), 68-78.

Ryu, S., & Lombardi, D. (2015). Coding classroom interactions for collective and individual engagement. *Educational Psychologist*, *50*(1), 70-83.

Saldaña, J. (2013). *The coding manual for qualitative researchers*. SAGE Publications Limited.

Scanlan, J. M., Care, W. D., & Udod, S. (2002). Unravelling the unknowns of reflection in classroom teaching. *Journal of Advanced Nursing*, *38*(2), 136-143.

Scanlan, J. M., & Chernomas, W. M. (1997). Developing the reflective teacher. *Journal of Advanced Nursing, 25*(6), 1138–1143.

Schunk, D. H. (2003). Self-efficacy for reading and writing: Influence of modeling, goal setting, and self-evaluation. *Reading & Writing Quarterly, 19*(2), 159-172.

Sfard, A. (1998). On two metaphors for learning and the dangers of choosing just one. *Educational Researcher*, *27*(2), 4-13.

Seligman, M. E., & Maier, S. F. (1967). Failure to escape traumatic shock. *Journal of Experimental Psychology, 74*(1), 1–9. https://doi.org/10.1037/h0024514

Sheffler, P., & Cheung, C. S. (2023). Growth mindset and social comparison effects in a peer virtual learning environment. *Social Psychology of Education*, 1-29.

Siegel, D. J. (2014). *Brainstorm: The power and purpose of the teenage brain*. TarcherPerigree.

Simon, M. K. (2011). *Dissertation and scholarly research: Recipes for success* (2011 Ed.). Dissertation Success, LLC.

Simpson, A., & Maltese, A. (2017). "Failure is a major component of learning anything": The role of failure in the development of STEM professionals. *Journal of Science Education and Technology*, *26*(2), 223-237.

Sinatra, G. M., Heddy, B. C., & Lombardi, D. (2015). The challenges of defining and measuring student engagement in science. *Educational Psychologist, 50*(1), 1-13. https://doi.org/10.1080/00461520.2014.1002924

Smiley, P. A., Buttitta, K. V., Chung, S. Y., Dubon, V. X., & Chang, L. K. (2016). Mediation models of implicit theories and achievement goals predict planning and withdrawal after failure. *Motivation and Emotion, 40*(6), 878–894. https://doi.org/10.1007/s11031-016-9575-5

Sun, K. L. (2015). *There's no limit: Mathematics teaching for a growth mindset.* Unpublished doctoral dissertation, Stanford University.

Stewart, D. (October 31, 2016). *Japan gets schooled*. Foreign Affairs.

Swain, J. (2018). *A hybrid approach to thematic analysis in qualitative research: Using a practical example*. Sage.

Swain, M., Kinnear, P., & Steinman, L. (2015). *Sociocultural theory in second language education*. Multilingual Matters.

Tsunekawa, K. (2023, March 13). *Never Allowed to Fail? The Unspoken Culture of the Japanese*. TsunaguJapan. https://www.tsunagujapan.com/behind-the-stereotype-what-is-japan-really-like/

Usher, E., & Pajares, F. (2008). Sources of self-efficacy in school: Critical review of the literature and future directions. *Review of Educational Research, 78*, 751-796.

Van Etten, S., Pressley, M., McInerney, D. M., & Liem, A. D. (2008). College seniors' theory of their academic motivation. *Journal of Educational Psychology*, *100*, 812–828.

Vasileiou, K., Barnett, J., Thorpe, S., & Young, T. (2018). Characterising and justifying sample size sufficiency in interview-based studies: Systematic analysis of qualitative health research over a 15-year period. *BMC Medical Research Methodology*, *18*(1), 1-18.

Vaughan, D. (1992). Theory elaboration: The heuristics of case analysis. In C. C. Ragin & H. D. Becker [Eds.], *What is a case? Exploring the foundations of social inquiry* [pp. 173-202]. Cambridge University Press.

Vygotsky, L. (1962/2012). *Thought and language*. MIT Press.

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes.* Harvard University Press.

Walton, G. M., & Wilson, T. D. (2018). Wise interventions: Psychological remedies for social and personal problems. *Psychological Review, 125*(5), 617-654.

Wanzer, D., Postlewaite, E., & Zargarpour, N. (2019). Relationships among noncognitive factors and academic performance: Testing the University of Chicago Consortium on School Research model. *AERA Open, 5*(4), 1-20. https://doi.org/10.1177/2332858419897275

Watson, K. M. (2019). The Operationalization of Integrated Internal Action Frameworks for Classroom Identity Development and Self-regulating Learners. *The European Journal of Social & Behavioural Sciences, 25*(2), 2948-2976.

Weiner, B. (1985). An attributional theory of emotion and motivation. *Psychological Review, 92*(4), 548–573. https://doi.apa.org/doiLanding?doi=10.1037%2F0033-295X.92.4.548

Weiner, B., & Kukla, A. (1970). An attributional analysis of achievement motivation. *Journal of Personality and Social Psychology, 15*(1), 1–20. https://doi.org/10.1037/h0029211

Weissberg, R. P., Durlak, J. A., Domitrovich, C. E., & Gullotta, T. P. (2015). Social and emotional learning: Past, present, and future. In J. A. Durlak, C. E. Domitrovich, R. P. Weissberg, T. P. Gullotta, & J. Comer (Eds.), *mer* (pp. 3–19). Guilford.

Willis, J. (2010). Assessment for learning as a participative pedagogy. *Assessment Matters, 2*, 65–84.

Woodman, K. (2023, April 21). *Japan Under Pressure: When Social Pressure Becomes Too Strong*. Living in Japan. https://jobsinjapan.com/living-in-japan-guide/japan-under-pressure-when-social-pressure-becomes-too-strong/

Yancey, A. K., Siegel, J. M., & McDaniel, K. L. (2002). Role models, ethnic identity, and health-risk behaviors in urban adolescents. *Archives of pediatrics & adolescent medicine*, *156*(1), 55-61.

Yeager, D. S., Carroll, J. M., Buontempo, J., Cimpian, A., Woody, S., Crosnoe, R., ... & Dweck, C. S. (2022). Teacher Mindsets Help Explain Where a Growth-Mindset Intervention Does and Doesn't Work. *Psychological Science*, *33*(1), 18-32.

Yeager, D. S., & Dweck, C. S. (2012). Mindsets that promote resilience: When students believe that personal characteristics can be developed. *Educational Psychologist, 47*(4), 302–314.

Yeager, D. S., & Dweck, C. S. (2020). What can be learned from growth mindset controversies? *American Psychologist, 75*, 1269–1284. https://doi.org/10.1037/amp0000794

Yeager, D. S., Henderson, M. D., D'Mello, S., Paunesku, D., Walton, G. M., Spitzer, B. J., & Duckworth, A. (2014). Boring but important: A self-transcendent purpose for learning fosters academic self-regulation. *Journal of Personality and Social Psychology*, *107*, 559–580.

Yeager, D. S., Romero, C., Paunesku, D., Hulleman, C. S., Schneider, B., Hinojosa, C., ... & Dweck, C. S. (2016). Using design thinking to improve psychological interventions: The

case of the growth mindset during the transition to high school. *Journal of Educational Psychology, 108*(3), 374.

Yeager, D. S., & Walton, G. M. (2011). Social-psychological interventions in education: They're not magic. *Review of Educational Research, 81*(2), 267–301.

Yeager, D. S., Walton, G. M., Brady, S. T., Akcinar, E. N., Paunesku, D., Keane, L., . . . Dweck, C. S. (2016). Teaching a lay theory before college narrows achievement gaps at scale. *Proceedings of the National Academy of Sciences, 113*(24), E3341–E3348. doi:10.1073/pnas.1524360113

Yin, R. K. (2018). *Case study research and applications: Design and methods* (6th ed.). Sage.

Zhang, J. (2022). What characterises an effective mindset intervention in enhancing students' learning? A systematic literature review. *Sustainability*, *14*(7), 3811, 1-21.

Zhang, J., Kuusisto, E., & Tirri, K. (2019). How do students' mindsets in learning reflect their cultural values and predict academic achievement?. *International Journal of Learning, Teaching and Educational Research*, *18*(5), 111-126.

Appendix A

Module Reflection Questions

Week 2: Academic Sense of Belonging

Preflection Questions (in-class)

From your experiences as a university student:

- ***Score the below statements from 0-10 (0 = strongly disagree, 10 = strongly agree)***
- ***Then write (at least) a short paragraph (4-5 sentences) explaining WHY (try to give specific examples)***

1.) In general, I feel a sense of belonging within my classes/at Kobe University.

2.) In general, I feel comfortable asking questions or volunteering ideas/opinions in my classes (Japanese and English classes).

3.) In general, I feel that my teachers know and care about me as a student/person.

4.) In general, I feel comfortable asking teachers for help if I do not understand something or need advice.

5.) In general, if I had questions about my classes, I could talk to a classmate or friend about it.

6.) In general, I feel a sense of belonging with other students in my classes.

Reflection Questions (homework)

Write (at least) a short paragraph (4-5 sentences) explaining WHY (try to give specific examples)

1.) What ideas/suggestions do you have to help us **increase our sense of belonging and community in this class** this semester? (give at least two)

2.) What things does/can a great teacher do **to help create a sense of belonging** for you? What things does/can a bad teacher do **to hinder/reduce a sense of belonging** for you?)

Week 3: Academic Identity

Preflection Questions

*Write **(at least) a short paragraph (4-5 sentences)** explaining your answer to the questions below (try to give specific examples)*

1.) Overall, what is your **attitude about learning/university** (positive, negative, mixed) and why?

2.) Overall, what is/are the **main purpose(s) of university** for you? (what do you care most about/**value** regarding learning/school?)

3.) **Who/what** do you think influences/influenced your **academic identity**? (*who you are as a student*) In what ways?

Homework Reflection Questions

Write ***(at least) a short paragraph (4-5 sentences)* for each question** telling me a little about your experiences as a student (high school and university) that have shaped/formed your **current academic identity**.

1.) Overall, have you **enjoyed school studying/learning**? Why or why not?

- What **learning experiences** can you most clearly remember that have had a **positive effect** on (an aspect of) your academic identity? Why?
- What **learning experiences** can you most clearly remember that have had a **negative effect** on (an aspect of) your academic identity? Why?

2.) In general, what are your **beliefs/values** regarding studying and learning? (what is important) Why?

3.) Overall, do you feel you have a **clear/strong academic identity**?

a. If yes, why?
b. If no, why not? What is missing?

❖ **Complete the free VIA (Values in Action) Inventory to learn your top values/signature strengths (24 total values)**

- https://www.viacharacter.org/account/register
- Share your top three signature strengths here

Week 4: Time Management & Study Strategies

Preflection Questions

Write (at least) a short paragraph (4-5 sentences) explaining WHY (try to give specific examples)

1.) "*The **main reason students fall behind** in school is because **they don't have enough time***."

→ Do you agree or disagree? Why?

2.) On average, **how many classes** do you usually have to take each semester? How do you feel about that amount?

3.) Are you good at:

- **Managing your time/schedule** and responsibilities?
- **Meeting deadlines** and doing everything you need to do each day/week? Explain

4.) What is the **biggest struggle/challenge** for you currently about university/studying that you would like to improve? Explain

Homework Reflection Questions (Being a Successful Student)

Write (at least) a short paragraph (4-5 sentences) explaining WHY (try to give specific examples)

1.) How did you motivate yourself to keep studying/working hard for the university entrance exam? Share your strategy for success.

2.) Did you learn study strategies in high school? How prepared did/do you feel for university?

3.) Which people or things (*ex. movies/TV, anime/manga, books, YouTube/TED videos, etc.*) helped motivate you to study/work hard? Why?

4.) Overall, how/why do you think you've been so successful in your academic life as a student? Share your story

Week 5: Procrastination & Study Strategies

Preflection Questions

Write (at least) a short paragraph (4-5 sentences) explaining WHY (try to give specific examples)

1.) Generally, what **kinds of tasks** do you tend to procrastinate? Why? (what about them exactly makes you avoid them?)

2.) Generally, what are some of the **biggest challenges** for you to successfully overcome procrastination and concentrate on completing your assignments on time? Explain.

3.) Generally, which **people** influence your procrastinating? (in **a good/helpful** way **AND/OR** in a **bad/hindering** way) Why? *(ex. a certain family member, a certain friend, boyfriend/girlfriend, certain classmates, club members, etc.)*

4.) What **effective strategies** do you use for self-control to overcome your procrastination? Where did you learn them?

Homework Reflection Questions

Optimizing our Time Management System & Study Space

A. 'My Optimal Time Management System':

- Try for **2 days** this week the 'Time Management System' from last week's video (on paper, at your desk/computer)
- Take pictures of your two days/schedules and paste them here: (*delete my sample picture and add your own*)

Then underneath the pictures, write a paragraph reflection explaining:

- How did it go? Was it helpful for you?
- Would you like to keep using this system going forward, or do you have another one you prefer better?
    - If yes to this system, briefly explain why
    - If you prefer another system, briefly explain what it is and why its best for you (try to include a picture/screenshot of it if you can)

B. 'My Optimal Study Space':

- Take a picture of (or draw) your usual study space and paste it here (*delete my sample picture and add your own*)

Then underneath the picture, write a paragraph reflection explaining: (*delete my sample explanations and add your own*)

- **What is good about your study space? (that helps you study/focus) Briefly explain why.**
- **What is bad and/or what might you want to change to make it better? Briefly explain what/why.**

Week 6: Learning

Preflection Questions

- *First, score each from 0-10 (0 = strongly disagree, 10 = strongly agree)*
- *Write (at least) **a short paragraph (4-5 sentences) explaining WHY** (try to give specific examples)*

1.) We can learn new things, but we can't really change our (level of) intelligence (how smart we are)

2.) Student intelligence (how smart you are) is the major cause of academic success (doing well) in school.

3.) When I make a mistake, I get embarrassed.

4.) If I have to work hard at something, it means that I'm not smart.

5.) I don't mind making mistakes. They help me learn.

Homework Reflection Questions

'My Difficult Learning Experience'

- **Try to write about an academic (school)-related experience** if possible, but if you can't think of one you can use any learning experience
- Write (at least) **two short paragraphs for Part 1 and Part 2**

Part 1:

- What do you do when you face a difficult learning challenge? Why? (explain your general approach)
- How/where/from who did you learn to do this? (explain, give examples)

Part 2:

Think of and write about a specific time you had **difficulty learning something** [**NOT university entrance exam! → we've already discussed this in a past assignment]**

- What was it? (give details, examples, etc.)
- What was difficult about it?
- How were you able to learn it?

Week 7: Fixed & Growth Mindsets

Preflection Questions

Using your notes from the class videos, answer the below:

1.) What is fixed mindset? What is growth mindset?

2.) What are some differences between fixed and growth mindset?

Homework Reflection Questions

Part 1: Learner Mindsets at School

- ***Write (at least) a short paragraph (4-5 sentences) explaining WHY (try to give specific examples)***

1.) Do you think the education system in Japan generally promotes a growth or fixed mindset? (explain why, give examples)

2.) What do you think is needed to promote growth mindset more in Japan? (school or society in general) What barriers/obstacles are there?

Part 2: 'My Growth and Fixed Mindset Areas'

Think of examples of areas in your life where:

- You have a **growth mindset**
    - Explain why, how do you keep this growth mindset, who/what influenced you
- You have a **fixed mindset**
    - Explain why, who/what influenced you
    - How might you rethink this area now to be more of a growth mindset?
- Write (at least) **a paragraph for each**

Week 8: Goals & Goal-Setting (Part 1)

Preflection Questions

*Write (at least) **a short paragraph (4-5 sentences) explaining WHY** (try to give specific examples)*

1.) From 0-10, (0 = strongly disagree, 10 = strongly agree) how important do you feel goal-setting is to be a successful student? Why? Explain.

2.) What kinds of goals do you usually set and in what areas of life? (ex. school, work, etc.) Give some examples.

3.) When/where/from who did you learn to set goals?
These days which people influence you in choosing/setting goals?

4.) Do you feel you are good at achieving your goals? Why/why not?

Homework Reflection Questions

'My Performance & Learning Goal Areas'

*Write (at least) **a short paragraph (4-5 sentences) explaining WHY** (try to give specific*

examples)

Think about your life:

- What are (at least) **two classes/areas in your life** where your main focus is on ***performance goals***? Why?
    - Are they ***approach*** or ***avoidance*** goals? *(are you mainly trying to get a positive result, or trying to avoid a negative result?)*
    - Do you think this influences your approach/strategy to achieving those goals? Explain

- What are (at least) **two classes/areas in your life** where your main focus is on ***learning goals***? Why?
    - Are they ***approach*** or ***avoidance*** goals? *(are you mainly trying to get a positive result, or trying to avoid a negative result?)*
    - Do you think this influences your approach to achieving those goals? Explain.

Week 9: Goals & Goal-Setting (Part 2) + Challenge & Grit (Part 1)

Preflection Questions

None, reflection discussion using the homework reflection questions only

Homework Preflection Questions

What is your opinion about the below statements?

- *First, score each from 0-10 (0 = strongly disagree, 10 = strongly agree)*
- *Write (at least) **a short paragraph (4-5 sentences) explaining WHY** (try to give specific examples)*

1.) I often set a goal but later choose to pursue a different one.

2.) I am a hard worker.

3.) I try to finish whatever I begin.

4.) Setbacks don't discourage me. I don't give up easily.

Week 10: Challenge & Grit (Part 2)

Preflection Questions

Using your notes from the class video, answer the below:

Think of one big challenge you have coming up this semester/year:

** try to choose an academic challenge, but if you can't think of one any area of life is fine*

- *What is it and what is challenging about it?*

How can you apply the `***4 ways to grow grit***` from the class video to help you overcome this challenge? (w*rite at least 1-2 sentences for each)*

- *Develop a fascination:*
- *Daily improvement:*
- *Connect it to/remind yourself of 'the greater purpose'*:
- *Develop a growth mindset*:

Homework Reflection Questions

'My Performance & Learning Goal Areas'

Think about your life – generally, do you consider yourself to be '*gritty*?'

Write (at least) ***a short paragraph (4-5 sentences) for each question below explaining WHY***

(try to give specific examples)

- **If Yes**:
    - Why do you think so? (explain, give examples)
    - Who (which people, fictional characters, etc.) do you feel influenced you in getting it?
    - When/where did you learn it? (explain, give examples)
    - When you experience a challenge, do you have any role models (people, fictional characters, etc.) that you think of to help motivate you?
- **If No**:
    - Why don't you think so? (explain, give examples)
    - Were/are there people around you in your life that had/have grit? (explain, give examples)
    - What do you think is preventing you from being grittier?
    - When you experience a challenge, do you have any role models (people, fictional characters, etc.) that you think of to help motivate you?

Week 11: Failure (Part 1)

Preflection Questions

Write (at least) ***a short paragraph (3-4 sentences) explaining WHY*** *(try to give specific examples)*

1.) What do you do when you experience failure? Why?

2.) How do you think other people see you when you fail? Why?

3.) Do you think it is possible to be successful in life without failing? Why/why not?

External Influences:

In your own experience, generally what do/did the below groups believe regarding **failure**?

- **Your family** (ex. parents, siblings, relatives, etc.)
- **School** (ex. teachers, classmates, club senpai/kouhai, etc.)
- **Your best friend(s)**
- **Japanese society** (in general)

*Which of the above (one or more) do you think **have most influenced** your own beliefs of failure? Why?

Homework Reflection Questions

Finish preflection questions, begin research for 'My Famous Failure' PowerPoint Presentation

Week 12: Failure (Part 2) + Stress (Part 1)

Preflection Questions (Failure)

(after PowerPoint lesson/teacher examples)

'Accomplishments List' & 'Hardships Overcome List' Journal/Memo

1.) What are 2 (major) accomplishments you've achieved in your life you are proud of?

Write (at least) ***one sentence*** *explaining* ***what*** *the accomplishment is and* ***why*** *proud of it (try to be specific, so you can read and remember it in the future)*

- **What are 2 (major) hardships/failures that you've experienced (and survived)?**

Write (at least) ***one sentence*** *explaining* ***what*** *the hardship/failure is and either* ***why*** *it was hard or* ***how*** *you survived it (try to be specific, so you can read and remember it in the future)*

- **Where will you keep your lists? (so you can see them often and add to them easily)**

(ex. Smartphone app [X], diary, daily planner, paper on wall, etc.)

Homework Reflection Questions (Stress)

Write (at least) ***a short paragraph (4-5 sentences) explaining WHY*** *(try to give specific examples)*

1.) Do you agree more with A or B? Why? Where did you get/learn this belief?

a. Stress is harmful and should be avoided, reduced, and managed

b. Stress is helpful and should be accepted, utilized, and embraced

2.) When do you feel stress? What are some things that cause you to feel stress, and why? Explain

3.) When you feel stress, what kind of thoughts do you have? Why? Where did you get/learn this belief?

4.) When you feel stress, how do you handle it? Why? Where did you get/learn this belief?

5.) How good do you feel you are at handling stress? Why?

Week 13: Stress (Part 2)

Preflection Questions

*Write (at least) **a short paragraph (4-5 sentences) explaining WHY** (try to give specific examples)*

1.) From 0-10 (0=no stress, 10=dying from stress), how stressed are you:

- Today? Why?
- This semester? Why?
- In your life in general? Why?

2.) Which of the below do you do when you feel stressed? Why? Where did you get/learn this belief?

A. Do you `bottle it up`? (keep your emotions inside yourself, don`t say anything or tell anyone, quietly 我慢, etc.)

B. Or do you share your stress with someone?

3.) In general, what is Japanese society's view regarding stress, and how to handle it? Why do you think so?

Homework Reflection Questions

Finish preflection questions and class video questions; complete 'My Famous Failure' PowerPoint Presentation

Week 14: Negative Thinking

Preflection Questions

Write (at least) ***a short paragraph (4-5 sentences) explaining WHY*** *(try to give specific examples)*

****if any of the questions are too sensitive/personal for you, just tell me so and you can skip it***

1.) What are some situations/examples when you usually think/feel negative thoughts/emotions **about school**? Explain

2.) What are some situations/examples when you usually think/feel negative thoughts/emotions **in your everyday life**? Explain

3.) What are some of the **most common kinds of negative thinking** you tend to have? (about yourself, others, etc.) *(ex. "I'm just not good enough, smart enough, etc.")*

4.) What do you usually do when you experience negative thinking?

Homework Reflection Questions

1.) Which **two (of the 10) Cognitive Distortions** do you feel you most often do? In what situations and why? Explain. *Write (at least)* ***a paragraph (4-5 sentences) explaining WHY for each one*** *(try to give specific examples)*

2.) How can you rethink them using the '**Triple-Column Technique**?' Use the chart in the PPT PDF or the attached documents in Google Classroom and make your own examples for the two cognitive distortions you listed in question #1.

Week 15: Success

Preflection Questions

Write (at least) ***a short paragraph (4-5 sentences) explaining WHY*** *(try to give specific examples)*

1.) What do you think "**success**" is? (what does it mean **for you**?) (at least **2-3 things** and explain why)

2.) Why? (from where did you get/learn this belief?)

3.) What do you think is most important to achieve **academic** success? Why? (finish the below prompts)

- *In order to be academically successful, you need to… because….*
- *In order to be academically successful, you need to… because….*

4.) What do you think is most important to achieve **success in life**? Why?

- *In order to be successful in life, you need to… because….*

- *In order to be successful in life, you need to… because….*

5.) How do you usually **measure** whether or not you are successful in your life? Do you think it's a good way/the best way of measuring success in life? Explain

Homework Reflection Questions

(Main homework was to prepare for their Reflection Interview and complete the Course reflection survey)

Optional Bonus

*To get bonus, write (at least) **a paragraph (4-5 sentences) explaining WHY for each one** (try to give specific examples).*

1.) So far in your life, how much do you feel like you're using each of the 4 metrics of success? Explain.

2.) What are your intensifiers? How/where might you use them to help you become more successful?

3.) How can you increase or improve these 4 focus areas in your life? (to feel and attain more success). Explain.

Appendix B

End-of-Semester Course Reflection Interview Questions

1. From 0-10 (0 = not at all, 10 = extremely well), how well do you feel your junior high school/high school prepared you to succeed as a university student? (*ex. classes, knowledge, skills, strategies, mindsets, etc.*) Why? Explain

2. Was the transition from high school to university classes in general (1st semester, 1st year) difficult for you?
    - If yes, why? Explain
    - If no, why not? Explain

3. What do you wish you had learned/been taught (in junior/high school) before entering university that would have helped you to better handle university classes/challenges? Anything that we discussed in this class? (knowledge, skills, strategies, mindsets, etc.)

4. If the younger brother/sister of one of your good friends was about to enter university and asked you for your advice on how to succeed, what advice would you give? (what several strategies/tips would you tell them from your own experiences as a university student and this class to help them be 'Straight-A' students?)

5. Overall, what/who would you say have been the biggest positive influences on your academic success in university? What/who has impacted/motivated you the most? Explain.

6. Overall, what are the biggest challenges/struggles/difficulties for you as an academic student? Explain.

7. Overall, what were the most valuable/interesting thing(s) you learned in this class? Explain

8. Do you have any questions/comments for me?

9. What are your plans/goals for the summer break and next academic year at Kobe University? Or if you are graduating, what is your future plan and/or goal?

Curriculum Vitae

Jason D. Gold
Indiana University
Literacy, Culture, and Language Education
jasongold526@gmail.com

EDUCATION

Indiana University, Bloomington (Ed.D.)
School of Education | February 2024
Doctor of Education in Literacy, Culture, and Language Education (LCLE)
Minor in Learning and Developmental Sciences (L.S.)

Arizona State University, Tempe (M.A.)
Mary Lou Fulton Teachers College | December 2011
Master's Degree in Curriculum and Instruction/TESOL (Teaching English as a Second Language)

Drexel University, Philadelphia (B.S.)
Bachelor of Science in Economics | May 2006
Bachelor of Science in International Area Studies | May 2006

Sophia University, Tokyo, Japan
Study Abroad with Council on International Educational Exchange (CIEE) | Sep 2004 - July 2005

WORK EXPERIENCE

Kobe University (Kobe, Japan) | October 2019 – March 2024
Associate Professor / School of Languages and Communication (SOLAC) & Faculty of Global Human Sciences

IELTS Licensed Speaking Examiner (JSAF-IELT) (Kansai, Japan) | January 2018 – 2021

Konan Women's University (Kobe, Japan) | April 2019 – July 2019
Part-Time Instructor of English / Department of English Language and Culture

Konan University (Nishinomiya, Japan) | April 2019 – July 2019
Part-Time Instructor of English / CUBE Hirao School of Management

Kwansei Gakuin University (Nishinomiya, Japan) | April 2015 - March 2019
Full-Time Instructor of English as a Foreign Language (IEFL) / School of International Studies (SIS)

Nagoya University of Commerce and Business (Nagoya, Japan) | August 2012 - March 2015
Full-Time English Lecturer / Faculty of International Studies

Nagoya International Junior & Senior High School (Nagoya, Japan) | August 2012 - March 2015
Part-Time English Lecturer

Lang Education Center (Hiroshima, Japan) | April 2012 - August 2012
Full-time English Instructor

Albert Career School, International Language School (Elkins Park, USA) | 2010- 2012
Adult ESL/TOEFL Instructor

GEOS Japan (Nagoya, Japan) | 2008- 2010
Full-time English Instructor

Lincoln Financial Group, Professional Development Program (Philadelphia, PA) | 2007- 2008
Rotation 2: Marketing Associate

Lincoln Financial Group, Professional Development Program (Hartford, CT) | 2006- 2007
Rotation 1: Compliance Consultant

CONFERENCE PRESENTATIONS / WORKSHOPS

- **JALT International 2023 |** Tsukuba, Japan November 24-27, 2023
  1. *University Students' Struggles: A Learner Mindset Case Study*
  2. *Learner Mindsets & Mental Reframes [MindBrainEd SIG forum, invited presenter]*
- **EuroCALL 2023 |** University of Iceland, Reykjavík, Iceland August 14-18, 2023
  Grammarly's Impact on L2 Learners' Foreign Language Anxiety and Learner Autonomy
- **JALTCALL 2023 |** Kumamoto, Japan June 2-4, 2023
  Fostering Self-Directed Writers Using AWE and WBMT
- **2022 KOTESOL International Conference** May 1, 2022
  An Ecolinguistics Approach to Education
- **2021 KOTESOL International Conference** February 27, 2021
  Higher Education Academic Identity Formation (and Educator Implications)
- **ICOLTEC 2020** November 11-12, 2020
  Novel Brain Science-Backed Productivity Strategies for Students (and Teachers!)
- **JALT Back to School Conference 2020** May 24, 2020
  Novel Brain Science-Backed Productivity Strategies for Students (and Teachers!)
- **LET 関西支部基礎理論研究部会 |** Ritsumeikan University, Japan December 2, 2018
  NeuroEducation Strategies for Increased Learner Engagement and Success
- **9th ICEEPSY |** Athens, Greece October 2-5, 2018
  Helping Students Overcome Self-Limiting Viewpoints via Learner/Stress Mindset Teaching Interventions
- **JALTCALL 2018 |** Meijo University, Nagoya, Japan June 8-10, 2018
  Creating a Fun and Friendly Environment: 8 Effective Uses of Technology for the EFL Classroom
- **GEN TEFL 2018 |** Kuala Lumpur, Malaysia May 11-12, 2018
  Streamlining EFL Classroom Management
- **(Hosted) Tottori University/Tottori JALT Workshop |** Tottori, Japan December 3, 2017

Smart Teaching / Successful Learning Parts 1-2 (1-hour each)

- **10th International Conference ICT for Language Learning** | Florence, Italy November 9-10, 2017
  New Teaching for a New Age: Neuroscience, Psychology & Technology in the Modern Classroom
- **15th AsiaTEFL & 64th TEFLIN International Conference** | Yogyakarta, Indonesia July 13-15, 2017
  Creating a Warm, Fun and Friendly Classroom Environment:
  8 Practical, Effective & Research-based Uses of Technology for any ESL Classroom
- **JALT2016** –Mind, Brain, Education SIG FORUM | WINC Aichi, Nagoya November 26, 2016
  The Behind the Scenes Key To Successful Learning Mindsets and Praise
- **KOTESOL 2016** | Seoul, South Korea October 15-16 2016
  Effective Classroom Management & Smart Teaching
- **THT Kyrgyzstan 2016 Workshops** September 8-16, 2016
  1.) *Student Attention & Engagement: 4 Key Factors Teachers Should Know*
    - Osh Pedagogical Institute of Humanities | Osh, Kyrgyzstan
      September 9
    - English Language Teachers' Association FORUM Seminar | Jalalabad, Kyrgyzstan
      September 10
    - Bishkek Humanities University | Bishkek, Kyrgyzstan
      September 14
    - Bishkek Humanities University | Bishkek, Kyrgyzstan
      September 15
    - English Language Teachers' Association FORUM Seminar | Bishkek, Kyrgyzstan
      September 16

  2.) *The Behind the Scenes Key To Successful Learning: Mindsets and Praise*
    - Osh Pedagogical Institute of Humanities | Osh, Kyrgyzstan
      September 9
    - English Language Teachers' Association FORUM Seminar | Jalalabad, Kyrgyzstan
      September 10
    - Bishkek Humanities University | Bishkek, Kyrgyzstan
      September 14
    - Bishkek Humanities University | Bishkek, Kyrgyzstan
      September 15
- **JALTCALL 2016** | Tamagawa University, Tokyo June 3-5, 2016
  Maximize Learning: Brain Plasticity & Mindsets
- **THT Laos (Teachers Helping Teachers)** | Vientiane, Laos February 1-7, 2016
  LaoTESOL2016 |The National University of Laos, Vientiane February 4-5, 2016
  Emotions in the Classroom–Neuroscience Findings on the Importance of Emotion & Student Learning
- **JALT 2014** | Tsukuba, Japan November 21-23, 2014
  University EFL Misaligned Expectations – Overcoming Learning Disjuncture

---

PUBLICATIONS

- Dizon, G. & Gold, J. (2023). Exploring the effects of Grammarly on EFL students' foreign language anxiety and learner autonomy. *The JALTCALL Journal*, 19(3). 299-316.
- Gold, J. (2023). Fostering self-directed writers using AWE and WBMT: A pilot case study. 神戸大学国際コミュニケーションセンター論集, (19), 1-27.

- Gold, J. D. (2022). An Ecolinguistics approach to education. In D. Shaffer & J. Kimball (Eds.), *KOTESOL proceedings 2021* (pp. 185-196). KOTESOL.
- Gold, J. D. (2021). Higher education academic identity formation and educator implications. In D. Shaffer & J. Kimball (Eds.), *KOTESOL proceedings 2021* (pp. 61-72). KOTESOL.
- Gold, J. D. (2021). Cognitive and sociocultural perspectives: Approaches and implications for learning, teaching and assessment. *The European Journal of Social & Behavioural Sciences*, *30*(3), 217-235.
- Gold, J. D. (2021). Novel brain science-backed productivity strategies for students (and teachers!). In *Integrating Technology and Humanity into Language Teaching, Book 2: Linguistics and Culture*, (pp. 1-17). Deepublish.
- Gold, J. D. (2020). Implications of mindsets on academic achievement. 神戸大学国際コミュニケーションセンター論集, *16(1)*, 37-48.
- Gold, J. D. (2019). Overcoming students' limiting viewpoints via learner & stress mindset teaching interventions. *The European Journal of Social & Behavioural Sciences (EJSBS)*, *24*(1), 2805 -2821.
- Gold, J. D. (March, 2019). Forget forgetting! A novel time-management system for students. In *Forgetting, The MindBrainEd Think Tank+*, *5*(3), (pp. 17-21). The Mind, Brain, and Education SIG of the Japan Association of Language Teachers.
- Gold, J. D. (2018). Streamlining EFL classroom management: Easy-to-implement technology strategies. *GEN TEFL Journal, 3*(1), 82-93.
- Gold, J. D. (2017). New teaching for a new age: Neuroscience, psychology and technology in the modern classroom. *Conference Proceedings of the 10th edition of ICT for Language Learning*.
- Gold, J. D. (2017). Maximizing student learning and success: Explicitly teaching neuroplasticity and learner mindsets. 関西学院大学国際学部研究フォーラム, *6*(1), 53-63.
- Gold, J. D. (2017). Emotions in the classroom? Neuroscience findings on the importance of emotion and student learning. In *13th Annual LaoTESOL Proceedings 2016-2017* (pp. 54-63). LaoTESOL.
- Gold, J. D. (2016). Key factors to maximize student attention, emotion and interest. In M. Pinto & D. Shaffer (Eds.), *KOTESOL Proceedings 2016: Shaping the future, with 21st century skills* (pp. 153-163). KOTESOL.
- Gold, J. D. (2015). Improving vocabulary acquisition and retention for English Language Learners. *Nagoya University of Commerce and Business Journal of Language, Culture and Communication*, *16*(2), 54-63.
- Gold, J. D. (2014). University EFL misaligned expectations—Overcoming learning disjuncture. In N. Sonda & A. Krause (Eds.), *JALT2014 Conference Proceedings*. (pp. 9-19). Tokyo: JALT.
- Gold, J. D. (2014). Language attrition. *Nagoya University of Commerce and Business Journal of Language, Culture and Communication*, *16*(1), 3-8.
- Gold, J. D. (2013). Japanese university students' views on Japanese and code-switching usage in the native English language classroom. *Nagoya University of Commerce and Business Journal of Language, Culture and Communication, 15*(1), 15-40.