GROWTH MINDSET AND AGENCY IN THE PRESCHOOL CLASSROOM

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ABSTRACT

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Mindsets, or how we as individuals characterize intelligence and our ability to attain it, are deeply connected to motivation. Those who employ a fixed mindset view intelligence as set and effort as fruitless. Conversely, those who utilize a growth mindset have healthy attitudes about challenges and view effort as a necessary part of learning. For educators working with children, finding ways to encourage growth over fixed mindsets is incredibly indicative of the future academic success individual children might experience. This study explores the foundations of mindset attainment through a teacher's ability to affect individual preschool-aged (three to five years) children's willingness to participate in activities. As willful participation is seen as a necessary component of growth mindset, further influences on participation are explored as well. Activities were utilized during set small group activity time that were designed to foster ideals important to a growth mindset and willingness to participate was recorded. Observations were then taken during free choice time to attempt to connect completed small group activities with increased display of growth mindset characteristics. While results were inconclusive in regard to an educator's actual ability to influence individual willingness, important characteristics of a successful classroom insofar as mindset implementation were

discovered. Results pointed to the possibility that the age group is developmentally more highly motivated to participate in new activities than older children. The other classroom effects on individual willingness to participate were represented through results as well that contextualized the importance peer relationships, relationships between teachers and students and the diversification of activities, group size and adults in the classroom play daily. These results point to the existence and importance of a greater classroom system that, as a whole, can be utilized by educators to promote healthy ideas about learning, achievement and mindset growth.

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CHAPTER 1: INTRODUCTION

> *Standing at the puzzle table a child engages with a puzzle, holding a piece in both hands. A frown begins to appear on the child's face and his brow furrows. "This is too hard!" He shouts, tossing the pieces down before storming away.* (Personal reflection)

Perseverance is an important component of academic success. It is difficult to grow in a meaningful way without meeting and overcoming challenges along your path. Individual's mindsets, or their understanding of what intelligence is and how it is built upon, often play a major role in determining how they process challenges (Dweck, 2006). Ideally, a person will develop a growth mindset, that is, the belief in the ability of individuals to strengthen their abilities through effort over the belief that all intelligence is inherent, or a fixed mindset (Dweck, 2006). Fixed mindsets have been shown to take away from individual's ability to find sustained academic success in that they dissuade the individual from pushing themselves (Dweck, 2006). Fixed mindsets tell students strong in academic work they needn't work hard and students struggling that they will never figure it out (Boaler, 2016; Dweck, 2006). Conversely, a growth mindset helps a student finding success that they can push further and further. A growth mindset helps a child struggling to see the experience as a challenge to overcome rather than an unmovable barrier (Boaler, 2016; Dweck, 2006).

The majority of research into growth mindset has been conducted with children in elementary and secondary schools (Boaler, 2016). As a preschool education practitioner, I was fascinated upon learning about mindsets to discover what effect they had on society's youngest learners. It seemed likely, through my own observations, that individuals as young as four and five had already begun developing their own individual mindsets and had begun to let them affect their willingness to participate in certain activities. Activities were developed to foster growth mindset ideals in an attempt to see whether these activities might affect individual student's willingness to participate in free choice activities voluntarily in the current study. This research was conducted with the idea in mind that if you can increase preschool-student willingness to participate in activities as a whole, you might affect the way they see that participation. Through that participation, it is hoped that these young learners begin to develop the skills necessary for utilization of a growth mindset.

The main goal of this research was to assist children in fostering the idea that effortful work is more important to success than inherent gifts, a key belief of those with a growth mindset. I believe that educators can unlock achievement in children by engaging them early and often with ideals that exemplify growth mindset in their academic experience Educators have a lot to learn about how young children's mindsets affect their willingness to engage in activities, especially ones that are new or challenging. The purpose of this research is to explore growth mindsets of preschool aged children as demonstrated through their willingness to participate. The following research questions are addressed;

1. Can teacher led activities prime growth mindset implementation in young children as demonstrated by willingness to participate?
2. How is the growth mindset demonstrated in the classroom through participation?

CHAPTER 2: LITERATURE REVIEW

Introduction to the Literature

The world is changing more rapidly as we move along our ever-changing landscape. Many of our senior citizens grew up in a world that has changed drastically in their lifetimes. Some of our oldest citizens grew up without electricity and indoor plumbing, let alone the technological advances we have seen in the last twenty years, such as the internet (Arnett, 2004). As much as the world has changed in the last fifty years, we must expect the same experience to continue for ourselves and, in time, for our children (Arnett, 2004). In fact, The Law of Accelerating Returns, explains that the technological advances made during the 20th century alone are equal to 200 centuries if technological advancements are made linearly (Kurzweil, 2001). It is predicted that during the 21st century, if the law of accelerating returns holds, technology will advance up to a thousand times greater than the previous century (Kurzweil, 2001). The world we are preparing for is, for all intents and purposes, unknown. Therefore, what we are preparing our children for is mostly unknown and, as a response, educators have started to shift their educational priorities towards the moral, social and emotional growth of the children they work with (Boaler, 2016; Boaler, 2019; Bowman, 2002; Dweck, 2006).

Mindset intervention is one way educators have worked to implement individual academic growth in the face of a changing academic landscape (Blackwell, Trzesniewski & Dweck, 2007; Boaler, 2016; Boaler, 2019; Carlton & Winsler 1998; Claro & Dweck,

2016; Dweck, 2006; Dweck, 2007; Dweck, 2010; Dweck, 2016; Dweck, Walton & Cohen, 2014; Dweck & Yeager, 2019; Haimovitz & Dweck, 2017; Mangels, Butterfield, Lamb, Good & Dweck, 2006; O'Keefe, Dweck & Dalton, 2018; Paunesku, Walton, Romero, Smith, Yeager & Dweck, 2015; Rhew, Piro, Goolkasian & Cosentino, 2017; Yeager & Dweck, 2012). To those who work with young people and their families, it is clear that mindsets, or the way individuals frame the process of struggle, is connected to their willingness to push themselves to be successful in light of a challenging situation. When educators consider the power of a growth mindset and find ways to encourage fostering an individual growth mindset in their students, personal growth often follows (Dweck, 2006). Educators can assist children to think and respond with a growth mindset, which in turn, will help prepare them for a future world that is inherently unknown (Boaler, 2016; Boaler, 2019; Bowman, 2002; Dweck, 2006).

This literature review will begin by exploring the nature of growth versus fixed mindsets and how a transition towards a growth mindset can both help a child maintain, as well as exceed expectations. The brain science behind mindsets is presented and explained in connection with academics and learning in general. This information is then applied to the preschool classroom and why assisting our youngest learners in developing a growth mindset is necessary. This review will transition to best practices educators can utilize to assist students in developing a growth mindset, how to refrain from fixed mindset processes, as well as exploring benefits of growth mindset utilization to the entire classroom environment. Some older articles and studies are reviewed in this section specifically to reveal practices that might be utilized with younger children. How

educators can work towards creating consistency in mindset messages amongst staff is explored, and lastly, ways educators can further assure consistency by assisting families of young children in utilizing growth mindsets, as well as avoiding fixed mindset messages will be explained and elaborated upon.

Growth Mindset vs. Fixed Mindset

A growth mindset is the belief in one's ability to meet challenges and in knowing the necessary journey and challenges involved with learning (Boaler, 2008; Boaler, 2016; Dweck, 2006; Dweck, 2010; Dweck, 2016). Whereas a fixed mindset believes in the inherent intelligence of individuals as something one is born with, a growth mindset helps children to see how their efforts have a direct connection with and an impact on their growth (Boaler, 2016; Dweck, 2006; Dweck, 2010; Dweck, 2016). The two mindsets orient individual students towards different goals, a growth mindset orients towards learning, and a fixed mindset orients towards experience validation (Haimovitz, Wormington, & Corpus, 2011). This orientation often defines an individual's willingness to challenge themselves and try new activities (Boaler, 2016; Dweck, 2007; O'Keefe, et al., 2018).

Dweck (2016) describes fixed and growth mindsets as a spectrum with the two mindsets representing the opposite ends of the spectrum; as humans we all lie somewhere on this spectrum. No one has a perfect growth mindset, rather we all have the ability to attain a growth mindset and strengthen it through effort and reflection (Dweck, 2016). For educators and students alike, this further shows the power of process and effort.

Dweck, began developing her mindset continuum through the research she conducted earlier in her career on motivation, personality, learned helplessness and how they contribute to an individual's understanding of learning and achievement. Dweck (1999; 2006; 2016) posited that those who are highly motivated to be successful in spite of setbacks were more likely to overcome said setbacks than individuals who perceive themselves as unqualified or incapable.

Individuals employing a growth mindset are more likely to engage in challenging problems than those with a fixed mindset, because they inherently believe that mistakes are part of learning and something to be celebrated (Boaler, 2016; Dweck, 2010; Dweck, 2016). Mistakes are seen as failures to those who only interact with activities to have their experience validated. Those who truly value learning and employ a growth mindset see mistakes as a major part of the learning process (Boaler, 2016; Dweck, 1999; Dweck, 2006; Dweck, 2010; Dweck, et al., 2014; Rhew et al., 2017). Through the research, it is theorized that not only are growth mindsets beneficial to student success but that growth mindsets are something educators can help students achieve (Haddie, 2012; Seaton, 2017). Growth mindset, in the research and in practice, gives individuals the push to extend themselves beyond their comfort levels, knowing that if they make a mistake they won't be chastised (Boaler, 2016; Boaler, 2019; Dweck, 2006; Dweck & Yeager, 2019; Haimowitz & Dweck, 2017).

Neuroscience

When considering mindset and growth mindset attainment brain science, the science of plasticity is important to consider. Plasticity is the process our brain takes in forming new connections and being able, regardless of age, to increase our abilities, understanding and knowledge through effort (Mundkur, 2005). Many educators and those who work with young people have come to see intelligence as fixed, that there are some people just smarter than others (Boaler, 2016; Dweck & Yeager, 2019, Yeager & Dweck, 2012). Growth mindset, the belief that intelligence is forged through effort and hard work, is the polar opposite. When educators fail to utilize growth mindset, it sends incorrect messages about intelligence and about the ways our brains grow in general (Boaler, 2016). Many studies have shown the remarkable capacity of the brain to grow and change within a short period (Abiola & Dhindsa, 2011; Doidge, 2007; Maguire, Woollett, & Spiers, 2006; Merzenich; 2013; Moser; 2011; Woollett & Maguire, 2011). Synapses, firing electric currents in the brain, connect different areas of the brain every time we learn new ideas (Abiola & Dhindsa, 2011; Boaler, 2016; Maguire, et al., 2006; Robinson, 2017; Woollett & Maguire, 2011). When we learn something deeply, the brain forms structural pathways on which synapses can travel with greater ease (Boaler, 2016; Doidge, 2007; Merzenich, 2013). Alternatively, when we learn something only superficially these synaptic pathways are weaker and can be washed away over time (Boaler, 2016). When educators stress deep thought and connections between academic settings they fortify these synaptic connections (Abiola & Dhindsa, 2010).

Some educators may believe in the myth that only children make these synaptic connections and therefore are the only ones capable of rapid growth and increase in ability. Though there is ample research that reflects synaptic growth children can make, there is research that supports a great deal of brain plasticity in adults as well (Doidge, 2007; Maguire et al., 2006; Woollett & Maguire, 2011).

For example, drivers of Black cabs in London are expected to know and memorize over 25,000 streets and 20,000 landmarks within a 25-mile radius (Maguire et al., 2006; Woollett & Maguire, 2011). Due to the longevity of the city of London, it is not set up on a grid system; rather, it is built upon itself into an interwoven, interconnected entanglement of streets and roads. To become a Black cab driver, individuals must take a test called "The Knowledge," a famously difficult examination that tests drivers' ability to recall a number of streets and landmarks. "The Knowledge" is known as one of the world's most difficult tests and, on average, it takes applicants twelve attempts before successfully completing the test (Maguire et al., 2006; Woollett & Maguire, 2011). Scientists studied applicants' brain changes as they engaged in intense spatial training and the memorization of the layout of London preparing for this test and found surprising results - at the end of the training period, applicants' hippocampuses had grown significantly (Maguire et. al., 2006; Woollett & Maguire, 2011). The hippocampus is the brain area that is responsible for acquiring and using spatial knowledge. This study demonstrated not only that brain growth is most noticeable through effort, but also that, regardless of age, brain growth is possible (Doidge, 2007; Maguire et al., 2006; Merzenich, 2013; Woollett & Maguire, 2011).

The utilization of growth mindset in education not only emphasizes the importance of effort in brain growth, but also communicates the holistic idea to children that working hard through challenges is necessary (Dweck et al., 2014). Challenges can be any activity that a child must emphasize hard work to accomplish. These challenges can be exhibited cross an array of competencies. Challenges might manifest themselves through mistakes and the brain reacts to mistakes differently depending on the mindset (Boaler, 2006; Moser, Schroder, Heeter, Moran & Lee, 2011). Psychologist Jason Moser's research (2011) on the brain and mistakes strongly relates to growth mindset. Moser looked at the neural mechanisms of our brains when we make a mistake and found two responses the brain uses, an ERN response and a Pe signal. In the research, twenty-five undergraduate students were examined after making a mistake. An ERN response, Mosser noted, is the increased electrical activity the brain experiences when there is conflict between the correct response and an error. This response occurs whether or not the participant is actually aware they are making an error (Moser et al., 2011). This neural response and the findings point to the notion that mistakes can be a learning tool, whether or not the mistake is corrected (Boaler, 2016). The second response our brain can have when making a mistake or encountering a challenge is a Pe signal. This response reflects a more conscious knowledge that a mistake or error was made. Moser also considered mindset and used individuals with fixed and growth mindsets to compare the amount of neural connections made during his experiment (Moser et al., 2011). He found that not only do individuals produce more electrical activity, ERN, and Pe responses when they make mistakes than when they are correct, but also that the highest level of activity

production occurred in those who employed growth mindset (Moser et al., 2011). The internal belief of a growth mindset gave students the confidence to make a mistake, examine a mistake and learn more deeply from that mistake than students who utilized a fixed mindset (Moser et al., 2011). This finding is significant for educators, as it shows not only the power of growth mindsets but also the internal capabilities of each student regardless of perceived skill levels.

Research into brain growth, especially plasticity, shows that individuals, regardless of age or skill, are capable of making positive progress in learning through simple and diligent effort (Maguire et al., 2006; Woollett & Maguire, 2011). For educators, the research demonstrates how important these messages about mindsets are, not only for the success of students in the present, but also into the future as a student moves on to their next challenges.

Importance of Preschool Years

Helping students transition towards a growth mindset can begin at any grade level. Educators have researched and begun guiding children as they adopt a growth mindset in order to engage productively (Boaler, 2016; Boaler, 2019; Cain & Dweck, 1995; Carlton & Winsler, 1998; Claro, 2016; Dweck, 2010; Heyman, Dweck & Cain, 1992; Smiley & Dweck, 1994; Yeager & Dweck, 2012). While the majority of growth mindset research is aimed at primary school aged children and older, rather than preschool children (Boaler, 2016; Boaler, 2019; Claro, 2016; Dweck, 2010; Yeager & Dweck, 2012), a smaller minority has looked at learners before kindergarten (Cain &

Dweck, 1995; Carlton & Winsler, 1998; Heyman, et al., 1992; Smiley & Dweck, 1994). For many children, preschool provides the first academic and consistent social experience. During this time children explore people and ideas in ways many have not had the opportunity for up to that point in their lives; for most children, preschool is their first group experience outside of the home. Dweck (1999) stresses the importance of these early learning experiences by emphasizing that early childhood education settings can change children's learning goals for better or worse. During these preschool years, foundational connections are made that last not only the rest of these children's academic careers, but for many, the entirety of their adult lives (Carlton & Winsler, 1998; Merzenich, 2016). Carlton and Winsler (1998) suggest establishing robust intrinsic motivational strategies in our early childhood learners as these strategies tend to last the individual's lifetime. Heyman, Dweck and Cain (1992) conducted an empirical study that found that children as young as three and a half can display responses of helplessness when confronted with challenge and failure. Educators criticized a portion of young children and found the criticism had a negative effect on the affect, activity choices and problem-solving strategies of young children. Researchers found that these young children experienced self-blame, negative feelings and plummeting abilities to form new strategies amongst the children who displayed helplessness when confronted with failure (Heyman et al., 1992). Smiley and Dweck (1994) found in an empirical study designed to explore motivation, that four-year-old learners sacrificed learning opportunities at the expense of "looking good". The researchers utilized puzzle solving activities over multiple sessions to look into how young children confront challenges and interpret

intelligence. Looking good in this context means refraining from participation in activities when the child is worried how the outcome of participation might threaten their own or other's perception of their abilities (Smiley & Dweck, 1994).

Being aware of this information, it becomes a priority to form and strengthen a growth mindset in our youngest learners (Carlton & Winsler, 1998). By working to form these mindsets in preschool aged children we are showing them that challenges and failure are acceptable parts of life and that working diligently and creatively without unhealthy stress is possible. Part of the educator's role in promoting a shift towards growth mindset in their students is by utilizing the mindset in their own life (Boaler, 2016; Dweck, 2006). By putting the actions and thought process of growth mindset on display, children are given real life examples of what the process looks like and why the process is important (Dweck, 2006). Children, especially our youngest learners, look for cues in their environment on what behavior is expected (Hearron & Hildebrand, 2013). By utilizing a growth mindset, educators demonstrate its function and importance for their students in concrete ways (Carlton & Winsler, 1998; Dweck, 2006). Educators who utilize the growth mindset have recommendations for strategies that have proven useful in fostering implementation in their classrooms. Some of these strategies and how they might be utilized with our youngest learners are thus explained.

Best Early Childhood Educational Practices

Insofar as the fostering of growth mindset, preschool teachers must be flexible and adaptive in their practices. The concrete operationalization of what mindsets are is

often lost on our youngest learners. Conversely, the nature of the developmental reality of these three to five-year olds lends itself extremely well to the one foundational skills necessary for positive mindsets, participation. Research is explored to determine what routes educators can take to foster a positive will to participate in activities voluntarily. For educators working with young children there are a number of developmentally appropriate ways to facilitate willful participation. By growing acclimated to participating voluntarily in activities at school preschool children are fostering foundational skills towards the development of their own growth mindset.

Diverse opportunities

Promoting diverse interests and opportunities for children allows them to try different things and explore areas of interest. By giving children these opportunities, educators are allowing children to choose what they want to do, promoting what is defined as agency. Agency refers to the thoughts and actions taken by individuals to express their own feelings, desires and motivations (Cole, 2019). Growth mindset is not simply the mindset that a challenge is necessary to growth, but also the overarching belief in oneself and one's ability to be successful regardless of the situation (Boaler, 2016; Dweck, 2007; Dweck, 2016). Giving young children a varied choice in activities allows them to work on and test different skills and to be tested naturally through these experiences and activities (Dweck, 2007; O'Keefe et al., 2018). O'Keefe and his colleagues (2018) explored the other end of the academic age spectrum, and discovered that even college students with growth mindsets were more likely to be willing and able to engage with subjects outside of their perceived area of interest than those with a fixed

mindset. Unfortunately, the research lacked concrete examples of educators looking to prime younger students' willingness to engage in new activities through growth mindset interventions.

It has been theorized that mindset may affect how people approach new interests (Dweck, 2007; O'Keefe et al., 2018). If an individual's mindset is fixed, their interests tend to be fixed as well. From the fixed perspective, abilities are set and, therefore, engaging in and developing a new skill is seen as a waste of time (O'Keefe et al., 2018). Promoting diverse interests in preschool often means presenting children with activities that are unique, mixed and attractive (Epstein, 2007; Hearron & Hildebrand, 2013). Presenting activities in areas such as art, fine and gross motor development, sequencing, play scripts, relationship exploration, and perspective shifting gives young learners diverse avenues to scaffold and explore their developing interests, as well as an opportunity to discover an activity they might struggle with and learn from.

High standards

Educators who fall into a fixed mindset category see their students and their intelligences as fixed and set, actively impacting their student's motivation levels by not trusting or believing in them to push themselves or progress (Dweck et al., 2014). Carol Dweck (2006; 2007; 2010; 2016) stresses the importance of the teacher's mindset in classroom community creation and holding students to high standards. While a teacher with fixed mindset might think some of their students are capable of learning and growth, they may also believe that some are not. A teacher with a strong growth mindset believes in the capability of all students equally and holds them to equally rigorous standards.

High standards, in this case, means a teacher's willingness to challenge their students and allow them opportunities that truly tests their abilities and beliefs (Dweck, 2010; Dweck et al., 2014; Dweck & Yeager, 2019). Many students, especially those at lower economic level schools, express belief that they could have achieved more had their teachers demanded more of them (Bridgeland, 2006; Jussim & Harber, 2005; Tauber, 1997). When considering the transition elementary students make to middle school, a study found that the most consistent predictor of motivational outcomes was the student's perception that their teacher(s) had high expectations of them (Wentzel, 2002). These studies point to the self-fulfilling prophecy theory in the classroom (Jussim & Harber, 2005; Rosenthal & Jacobson, 1968; Tauber, 1997; Wentzel, 2002). The self-fulfilling prophecy, first posited by Rosenthal and Jacobson (1968), is the idea that teachers with high expectations for their students often produce high performing students. Two mechanisms of self-fulfilling prophecy that appear to be the highest effectors of student motivation are increased individual attention and increased positive emotions (Dweck et al., 2014). Teachers that have high expectations of their students often give more attention to individual students in numerous ways, from taking time to answer an individual question to creative assistance with an assignment. Educators who have high standards for their students also tend to have better relationships with their students, based, in part, in a more positive view of the student leading to encouragement and motivation (Boaler, 2006; Dweck et al., 2014). By holding children to high standards, educators send a message to their students that they are capable of great things. Regardless of age group, children can benefit from pushing themselves to meet and

exceed high standards held by teachers, especially when introduced earlier in the year or in the child's academic career (Dweck et al., 2014). When teachers simultaneously hold students to high standards while being aware of expected achievement levels for a specific age group, an ethical view of the group and its goals emerges, as well as an understanding of individual students (Boaler, 2006; Dweck, 2010). Holding students to a high standard fosters the creation of a classroom community that values hard work, mistakes and challenges, all of which lead to the creation of a growth mindset. The next sections will explore how certain messages about success and failure, even within a classroom of students being held to high standards, negatively affects a student's ability to achieve and foster the creation of their own growth mindset.

Responses to failure

Many educators actively work to avoid challenging their students. However, by limiting students to only work they can easily be successful with, educators sacrifice growth for comfort and maintenance of the status quo (Dweck et al., 2014; Robinson, 2017). Educators that set low standards often employ a fixed mindset about their student's abilities and limitations (Dweck et al., 2014). Educators that employ a growth mindset commit to challenging their students (Dweck, 2010; Robinson, 2017). Having a growth mindset means an individual sees challenges as necessary, as an integral part to creating success (Boaler, 2016; Boaler, 2019; Dweck, 2007; Dweck, 2016; Robinson, 2017). By challenging students, educators give them many opportunities to make mistakes and ultimately build their brains.

This discovery supports other studies (Blackwell et al., 2007; Burnette, O'Boyle, VanEpps, Pollack & Finkel, 2013; Cain & Dweck, 1995; Mangels et al., 2006; Paunesku et al., 2015) that demonstrate the enhanced brain reaction and attention to mistakes validated by those who have growth mindset. Knowing that mistakes and challenges benefit a child's growth is a powerful idea that pushes a teacher to embrace mistakes and to allow their students to work through these challenges (Dweck, 2010; Haimovitz & Dweck, 2017). This information is also impactful in that it can be shared with students who may be struggling themselves. Many students see mistakes as discouraging and more of a representation of their ineptitude than an opportunity to grow (Blackwell et al., 2007; Boaler, 2016; Boaler, 2019; Cain & Dweck, 1995). One of an educator's main goals insofar as the promotion of growth mindset in their students is to encourage mistakes and encourage challenges. By encouraging students to challenge themselves, educators are providing opportunities for brain growth, appreciation of challenges, and the belief that they are capable of success (Dweck et al., 2014; Merzenich, 2013).

Responses to success

Whether it be a professional or personal role, adults with a stake in children's learning typically work hard to encourage students. For educator's working with and working towards a growth mindset, encouragement in the classroom is often useful. What is even more critical, however, is the framing of that encouragement and reflecting on how a child might interpret the encouragement. One type of encouragement to avoid is praise (Brummelman et al., 2013; Brummelman et al., 2014; Dweck, 2006; Dweck, 2007; Haimovitz & Corpus, 2011; Haimovitz & Dweck, 2017; Kamins & Dweck, 1999;

Mueller & Dweck, 1998; Zentall & Morrison, 2010). For educators hoping to bolster children's self-esteem, avoiding praise might be seen as counterintuitive. Rather than giving them confidence and motivating learning, praise negatively affects a child's ability to be successful in the future (Brummelman et al., 2013; Dweck, 2006; Dweck, 2007; Haimovitz & Corpus, 2011; Haimovitz & Dweck, 2017). Children accomplish many things every day both at school and at home. Praising accomplishments, specifically how we praise accomplishments, sends messages to children about success (Brummelman et al., 2013; Dweck, 2007; Dweck, 2008; Haimovitz & Corpus, 2011; Haimovitz & Dweck, 2017; Kamins & Dweck, 1999; Mueller & Dweck, 1998; Zental & Morrison, 2010). Rather than allowing children the agency to judge success for themselves, praise categorizes children's accomplishments in ways that shapes their own ideas of what is good and bad (Dweck, 2006; Dweck, 2007).

For educators, awareness is key relative to praising achievements. There are two main types of praise - generic and non-generic. Research shows that children as young as two can understand the difference between generic and non-generic praise (Zental & Morris, 2010). Non-generic praise focuses on individual specifics rather than categorical skill sets (Zental & Morris, 2010). When non-generic praise promotes nonstable factors (factors that differ from case to case), such as "You worked really hard on that," effort is seen as the key component of success (Zental & Morris, 2010). Conversely, by calling a child "good" or "smart", educators are using generic praise and promoting a fixed message of intelligence. Mueller and Dweck (1998) suggest that using generic praise when children are successful fosters fixed mindsets in a child about intelligence.

Conversely, praise of the process rather than the outcome leads to promotion of a growth mindset, that intelligence can be developed (Mueller & Dweck, 1998). Mueller and Dweck (1998) tested this hypothesis by praising a population of students, one half was praised for their abilities, the other half was praised for their process. Children praised for their abilities overwhelmingly saw intelligence, including their own, as fixed (Mueller & Dweck, 1998). These children saw their intelligence as something that existed in a vacuum and, as a consequence, were much less likely to attempt difficult challenges and questions because they saw failure as a threat to their intelligence (Brummelman et al., 2014; Haimovitz & Dweck, 2017; Mueller & Dweck, 1998). The students whose process was praised, on the other hand, were more likely to see their intelligence as something that was able to be developed. Their growth mindset allowed them the confidence to make mistakes, learn from them and make corrections (Mueller & Dweck, 1998). These children were much more likely than those whose intelligence was praised to attempt more difficult challenges and stay persistent and positive in their efforts (Mueller & Dweck, 1998). When engaging with our youngest learners these messages about praise remain consistent. Kamins and Dweck (1999) found that kindergarten children personally praised or criticized were more likely to display a behavior of helplessness than those whose process was praised or criticized. Research suggests that the consistency of praise children receive is important as well (Zental & Morris, 2010). Inconsistent praise, or the mixing of both generic and non-generic praise, while connected with an increase in an individual's self-esteem, was not found to connect with higher levels of motivation or achievement in students (Zental & Morris, 2010). Consistent, non-generic, process-based

praise in the formation of positive attitudes about challenges and work foster a growth mindset. Maximizing the consistency of these growth messages becomes a major priority of educators. In order to create and maintain consistency in a child's life, connections between school and a child's home are necessary.

Consistency

Consistency between adults is key to a preschool child's development and to successfully develop a growth mindset (Zental & Morris, 2010). The fostering of a successful connection between a child's school and home life is a necessary goal for both educators and families alike (Hearron & Hildebrand, 2013; Wright, Stegelin, Hartle & Wright, 2007). By connecting the multiple aspects of children's lives, a more consistent approach to praise, challenges and hard work can be taken. Through the knowledge about how consistency affects the youngest learners, strategies can be designed and put in place to guarantee consistent messages about mindset from the various adult roles in a child's life (Boaler, 2016; Dweck, 2006). Consistency between school and home is a necessary component in the ability of children to successful develop strategies designed to overcome challenges and form in themselves a growth mindset (Hearron & Hildebrand, 2013; Wright et al., 2007).

Staff consistency

When working with a student or group of students regularly within a school, ensuring that staff is consistent in their core attitudes and beliefs is essential (Reilly, 1986). This is especially true for process over personal praise, reframing challenges, and

adult mindsets (Brummelman et al., 2013; Dweck, 2007; Haimowitz & Corpus, 2011). It only takes one staff member praising a child's ability over their process for doubt to form in the child about future successes and failures, therefore the consistency of the messages from all members of staff is essential. Staff education, in regard to growth mindset implementation, has been shown to have a positive effect on staff consistency, providing the opportunity to educate staff on best practices to utilize with children through conversation, while also giving them the opportunity to reflect on their own processes and ways they can improve (Seaton, 2018). Educators know how important consistency, ongoing conversation, and collaboration is between the home and the school (Hearron & Hildebrand, 2013; Wright, Stegelin, Hartle & Wright, 2007).

School to home connection

Children, especially those as young as preschoolers, connect a great deal of importance with setting, with two of the most important domain settings to be home and school (Wright et al., 2007). As children diversify and normalize their experiences, they are able to make connections that alert them to expectations of different settings and how these expectations are similar and different across different settings (Wright et al., 2007). If consistency is key to success, how can educators work together with families? Research shows that children from families that prioritize academic success are more likely to prioritize it themselves and that growth mindset is connected with the mindsets found in a child's home (Gunderson, Gripshover, Romero, Dweck, Goldin-Meadow & Levine, 2013; Haimovitz & Dweck, 2016). Families that stress the importance of intelligence, that praise the outcome over the process, and that minimize the importance

of challenges, often pass these fixed mindset ideas on to their children (Gunderson et al., 2013; Haimovitz & Dweck, 2016). Conversely, according to Haimovitz and Dweck (2016), families that embrace challenges and mistakes, who praise process and emphasize the importance of working hard, similarly pass these ideals on to their children.

Educators are presented then with another issue entirely, how to prioritize change and fostering of a growth mindset within the family structure itself. Research shows that success starts with communication and relationships; relationships between school and home, between child and educator, and between administration and families (Wright et al., 2007). When a connection is made and communication is made in an honest and open way, families are more likely to be receptive to information from teachers that may increase their child's well-being and academic success (Wright et al., 2007). Therefore, a priority for educators includes connecting with all families, especially students they judge to be needing the most academic assistance (Hearron & Hildebrand, 2013). When these school-home connections are made consistently, a persistent pattern of growth mindset can emerge in the child's life regardless of setting (Dweck, 2006; Wright et al., 2007). When families are alerted to the power of a growth mindset, they often respond positively to the ideas (Dweck, 2006). As parents are educated about the process of fostering a growth mindset, praise and feedback will change, the way mistakes are viewed changes, and ideas about intelligence become more fluid.

Conclusion

How we consider our world and our experience is a determinant to our expectations of the future. Mindsets, both fixed and growth, explain how we as humans interpret our participation in our experience and therefore our expectations for that experience. Utilization of a fixed mindset can be dangerous to an individual's experience, as their perception of helplessness can undermine their confidence as well as their willingness to try new things (Brummelman et al., 2013; Dweck, 2008; Haimovitz & Dweck, 2017; Kamins & Dweck, 1999; Zental & Morrison, 2010). Conversely, shifting towards a growth mindset gives individuals another tool that increases their ability to overcome challenges as well as a definitive redefinition of what it means to struggle (Boaler, 2016; Boaler, 2019; Dweck, 2007; Dweck, 2016; Robinson, 2017). The power of a growth mindset transforms a setback from a failure into an opportunity. All of our brains respond and grow when mistakes are made, however those who utilize a growth mindset respond in deeper ways to their mistakes, which allow them an extended thought process that is not observed in those who maintain more of a fixed mindset (Moser et al., 2011). By presenting students, regardless of age, with unique, developmentally appropriate and varied activities it gives them a greater opportunity to experience new things and thus experience challenges and expand their conceptions of their own success (Dweck, 2007; O'Keefe et al., 2018). Educators striving to foster growth mindset utilization in their classroom are aware of the effects their comments, both positive and negative, have in connection with their students. Educators avoid praising children's

performance, rather focusing on the process of what the child accomplished, thus establishing the importance of the work leading up to the final product (Brummelman et al., 2013; Brummelman et al., 2014; Dweck, 2006; Dweck, 2007; Haimovitz & Corpus, 2011; Haimovitz & Dweck, 2017; Kamins & Dweck, 1999; Mueller & Dweck, 1998; Zentall & Morrison, 2010). Similarly, educators prioritize and redefine challenges in their classrooms. Challenges are considered by utilizers of growth mindset as opportunities for both personal and group growth, as necessary parts of learning, rather than as situations to be avoided (Boaler, 2016; Boaler, 2019; Dweck, 2007; Dweck, 2016; Robinson, 2017). Educators, especially those working with our youngest learners and their families, are also aware of the power of consistency in their students' experiences (Hearron & Hildebrand, 2013; Wright et al., 2007; Zental & Morrison, 2010). Thus, efforts are made to train and employ staff members that utilize consistent messages about growth mindset, failures and successes. Lastly, effort is made by educators to form a relationship with the adults that caretake students at home. By forming these connections, staff is further cementing consistent messages about mindset from adults in their students' lives through adult education (Dweck, 2006; Wright et al., 2007). Through effort and utilization of these strategies, educators have the tools to begin transition from fixed to growth mindset in their classrooms, providing students with a greater chance of overcoming future challenges, academic or otherwise.

CHAPTER 3: METHODS

As the literature review had shown, the lack of mindset intervention literature in connection with children under five years old was sparse. As a preschool educator, it was clear through my own experiences that children under five are already beginning to develop mindsets. While some children thirsted for more and varied information, other children, when presented with new or challenging activities, often disengaged. Foundationally, we talk so much as educators about how important the preschool years are for the development of important academic skills. Motor, behavioral, social skills, etc., all are monitored, and individual progress is tracked. For that reason, shouldn't we begin fostering the foundational skills necessary for growth mindset growth in these young children? The plan was to develop a mode for collecting child willingness to participate and explore the connection between that individual willingness and individual mindset.

Research Question

The primary purpose of this research project was to explore individual willingness to participate in free choice activities. Strong connections were drawn that explored connection of child mindset with the child's willingness to participate in activities voluntarily. High willingness to participate was connected with utilization of a growth mindset. Conversely, low willingness or high hesitancy to participate in new activities was measured as a fixed mindset. The research was designed to address the following

questions: Can teacher-lead activities prime growth mindset development and willingness to participate in new experiences in preschool aged children? From that question the next logical step is to ask; How is the growth mindset demonstrated in the classroom through participation?

Research Design

In this study, I functioned as a participant-researcher and taught a series of lessons based on growth mindset while observing children's behavior during and after the lesson. The research project was originally planned for children to participate in five small group activities as well as collecting data for ten voluntary activities. Due to the unexpected complications of COVID19 and the subsequent shut down of the research site, I was able to complete three small group activities fully and observe six free choice activities. The learning activities were designed to assist children in expanding their thought processes, outside-the-box thinking and foster positive growth mindset development. This instructional series fits as a part of the normal classroom routine and falls within the regular curriculum of the on-campus preschool (OCP).

Observations took place in two unique settings. For small group sessions, in which participation was led and encouraged directly by an involved adult, observations took place in an experimental setting. That is, the access, group, materials and directions were all manipulated and monitored by the educator. The goal of these observations taken during experimental settings was to encourage thought consistent with fostering of a

growth mindset. The other observations completed during free choice time focused on collecting data from a natural setting. As educators do not manipulate items during free choice in any way that is meant to persuade or dissuade interest, data collected during those times reflects true student willingness to participate because to participate is totally voluntary. The goal of observations taken during these sessions was to capture a concrete connection between success completing the planned small group lessons (experimental setting) and higher willingness to participate voluntarily in new and exciting free choice activities (natural setting). Thus, the goal was to determine whether we as educators can utilize these activities in the future to foster positive mindset growth in our youngest students.

Parents received a participation handout attached to a consent letter, explaining growth mindset as well as the proposed research plan and schedule. They were instructed to return the consent form and the entirety of the fifteen-child classroom community returned the consent form with an affirmative response. Children whose families choose not to participate did not lose any benefits from the OCP.

All observations took place during the Spring 2020 semester morning session. The participant group included eight of the fifteen children enrolled in the morning session at the OCP. The remaining seven children were in the control group. All procedures and observations occurred in the preschool. No technologies were directly interacted with by participants. All physical study records were kept in a locked file

cabinet during research. All physical records will be kept in a folder locked in a file cabinet in the OCP office.

Setting

All observations and data collection took place at the preschool I was employed at during Spring semester 2020. Founded in 1968, the preschool (OCP) has since been committed to providing ethical, child-centered care to the community ever since. The OCP is an on campus preschool set on a college campus serving children aged 2 years, 9 months to 5 years old. The OCP utilizes an observation booth using a two-way mirror to observe children's behavior. University students are utilized on a semester-to-semester basis to serve as employees. University students, depending on their degrees, will either spend one or two semesters working directly in the classroom with preschool children, engaging outside of class on related assignments as well for course credit one day a week. The head teacher, however, is there daily as is the assistant teacher, my role. This means the group of teachers engaging with children is different most days of the week. The OCP is broken into two half-day segments, morning and afternoon. Both programs house around 15 children, half of those being children that participate in both classrooms. For the purpose of this experiment we will be focusing on the AM session as I was a participant observer solely during these sessions.

Description of Planned Learning Activities:

Observed small group (experimental) activities

Paper tearing and collage. Children will tear pieces of colored paper, without the use of scissors, and paste them in a collage design of their choice. Duration: 10-15 minutes. Completed.

Puzzle day. Children will independently work on normal sized puzzles for half the session before transitioning to working together on a large floor puzzle as a group. Duration: 12-20 minutes. Completed.

What do you notice/what do you see? Teacher will utilize three printed pictures and ask children what they see. Teacher will record one thing each child notices or sees in pictures. Duration: 8-15 minutes. Completed.

Recycled art. Children use their own ideas to create something using recycled materials. Recycled materials would include pipe cleaners, Popsicle sticks, corks, bottle caps, plastic packaging and egg carton pieces. Scotch tape and scissors will also be used. Teacher will take pictures of creations using the classroom iPad before sending them home with the child. Duration: 15-20 minutes. Incomplete.

What do you notice/What do you see? part 2. The teacher will remind children of previous noticing-seeing exercise with one picture and recording something each child notices. Pictures of children's creations, from last activity, will then be looked at with

children. What children notice/see about creations will be recorded. Duration: 10-15 minutes. Incomplete.

Observed free choice (natural) activities

Observations were taken over six separate days in late February and early March 2020 and were connected in part with activities that were mostly new and unique in the classroom. Unlike small group activities, free choice activities were led by individual teachers which allowed the observer an opportunity to collect data freely. Activities included Drama play, Makers Table, woodworking, athletics, seed planting and cooking. Four of the seven activities, including drama, makers table, dance party and cooking were observed inside, while athletics, woodworking and seed planting occurred and was observed outside in the play yard. Inside activities occurred during inside free choice besides dance party, around 9:00 to 10:00 AM, while outdoor activities occurred during the time we spent outside, 10:20 to around 11 AM. Dance party occurred between 11:00 and 11:15 AM. Observations occurred in the following order: drama play, maker's table, sports, woodworking, seed planting before being rounded off with the cooking activity and our dance party.

Participants

Participants were chosen from fifteen attending students the preschool during spring semester 2020. All fifteen children's families were given consent and information forms prior to data collection. Every family returned the consent form granting their

children the opportunity to participate. As all families gave consent, experimental groups were then chosen based upon already created small groups. As a teacher has an opportunity to lead a small group every day and we did not have enough teachers to run small groups every day, this time seemed like an opportune time to collect data as a participant-observer. Effort was made to prioritize working with four-year olds, as opposed to our younger learners, due to developmental realities that make the likelihood of meaningful engagement more likely. Thus, the average age of the eight participants in the experimental group was around 57 months, or four years and nine months old, when data collection began. The range of participating students in the experimental group was four, though one member turned five during data collection. The remaining seven children in the control group were aged four (three children) and three (four children). The average age of the control group was around 52 months, or four years and four months old, when data collection began. The experimental group was formed by four girls and four boys. Of the children in the experimental group, six of the eight had more than one semester experience in this morning classroom session. One of the two students with less experience had previously engaged solely in the afternoon session and had extended to both morning and afternoon sessions this semester. While the other student with less experience had begun attending the OCP morning session in the fall. The control group had four children with more than one semester experience in the OCP morning class. The remaining three children in the control group began their second semester at the OCP during the semester data collection occurred. Three of the eight children in the experimental group are the older of two siblings, three of the eight are the

younger of two siblings, one of the eight is the middle child of three and one child of eight is the youngest of three. All eight children in the experimental group have two adult caretakers in their homelife consistently. Three children in the control group are only children, three are the youngest of three siblings and one child is the youngest of two children. One child in the control group has a split family, but time with both adult caretakers while the other six children have dual parent-caretaker households.

Data Collection

The children involved in the experimental group were observed during small group time, a 10-20-minute time in which they are grouped in groups of two to four of the same children and participate in teacher-led activities. This routine allowed me to operate as a researcher during a scheduled time in which control and experiment groups were specifically divided. All members of control groups had their own small groups to participate in, effectively dividing the groups during this small group time. Any wandering children were sent back to their individual small groups by educators based upon classroom norms set in place. I conducted experimental research through these designed activities with two separate small groups once each per week. These activities were designed around growth mindset and were planned to be implemented in a sequence of a one-time per week basis over five weeks. Data was also collected in connection with child willingness to volunteer in various free choice activities during this five-week section. Free choice activities were activities a child chose to participate during the two separate free choice sessions during the school day. Due to complications from

COVID19 however, only three weeks' worth of observations for both free choice and small group activities were completed.

Observations were recorded utilizing a 5 ranking scale measuring individual willingness to participate during daily scheduled small group time. As the leader of the small group, it was necessary that I adopt the role of participant-observer and collect my own data as I directed the small group itself. As an observer, I noted individual child disposition toward the activity as it occurred. Disposition was noted in a number of ways. Successful engagement was noted for children who maintained participation for fifteen minutes or more. Children who experienced success during these times often had sustained focus demonstrated by their eye contact with the activity. Children who demonstrated successful participation during small group followed directions and were attentive to teacher expectations insofar as expected behaviors. Enthusiasm was included in the ranking if the child expressed positive and reoccurring sentiment to the activity. Enthusiastic participation was also noted if the child engaged continuously for longer than fifteen minutes or by requesting to participate beyond the teacher's plan. The range of rankings included enthusiastic participation, willing participation, willing participation with encouragement, unwilling to participate and unable to participate. Children who demonstrated unwillingness to participate in small group showed greater level of disconnect with the activities. This disconnect was measured through inability to maintain eye contact with the activity's materials, number of reminders of expectations necessary and verbal expression made by the child themselves. When the educator was

forced to adapt an activity in order to promote participation on the fly, note was taken. If a child only needed a few words of encouragement or direction to participate, they were observed as willing, but note was taken into the role the teacher played in that willingness. Care was taken to explain what each ranking looked like on the document and includes a description of each ranking. During the shortened semester, participation in activities during free choice time were also recorded. For these observations, a second checklist was used to record participation. Both experiment and control groups were given opportunities to participate in free choice activities and were thus recorded. This checklist simply recorded whether children were in control or experimental groups and whether they were willing or unwilling to participate voluntarily in a free choice activity. Both checklists are included as attached documents.

The data collection device was utilized for activities representing the entirety of learning sessions, a forty-five-minute session at the beginning of the day for inside free choice, a twenty-minute session for small groups and a thirty-minute session outside for free choice. Collecting data for free choice activities afforded the observer greater time leverage to record, as these activities were predominantly modeled by and separate adult leader, leaving the observer less ethical responsibility to support in a leadership role. Due to the nature of leading a small group activity, data collection in this setting had to be done quickly and in harmony with the other moving parts leading adults are expected to maintain. As the adult in charge during a small group, attention must be maintained on the children in a way that hinders the ability to collect data. That is not saying it is

impossible, rather saying the luxury of observing activities led by other adults afforded a different and ultimately deeper opportunity to collect data that would not have been possible utilizing only small group activities. Collecting data was not limited to observations however, the researcher also took time after each small group lesson to reflect on the lesson, collect their thoughts and record qualitative data, not only on student success but also on notes to make the activity or researcher more successful in the future in terms of data collection. Once collected, data collection tools were compiled chronologically and stored in a locked file cabinet in the OCP office.

Data Analysis

Once data was collected, effort was made to hypothesize a number of coding elements to look for when interpreting the data. The original codes chosen represented five conceptual findings the researcher was hoping to connect to the classroom. These codes included high willingness to participate across the population, peer influence on participation, adult relationships influence on participation, participation based on group size and the competitive nature of participation. The data supported the two first findings with a great deal of information. Data, contextualized by observational information, was also able to support my third and fourth finding through coding. The fifth finding however, though supported by experiential data, was not adequately supported by the data. Therefore, I adjusted my codes and reduced them down to three, combining the third and fourth previous finding. Subsequent coding combined with observational data showed the relevancy of the connection between new and exciting activities and

increased willingness to participate which induced plenty of data in support. At that time, the third code was re-expanded to include separate codes for the influence adults, activities and group size played on willingness to participate. All names in this study including the research site are pseudonyms.

Researcher Bias

Utilizing a role in which I already had relationships in place with children and staff is a critical element to the research and experiment. As one of the two consistent (every day) teachers in these children's academic experience, my role as educator in the classroom was already established. As a result, I did not have to spend additional time developing a trusting relationship with the children in the class. My established relationship with the children allowed them to put their true selves forward during activities. Establishing these relationships are key to establishing connections and a functional routine for the children you are interacting with, especially with young children. As I have been interacting with many of these children for over a year, they are comfortable with me and are comfortable being themselves with me, two qualities I believe to be paramount to fostering mindset implementation through activities with children.

Having a relationship built on time, trust and support is truly important for children to feel comfortable opening up and being themselves to you as an educator (Boaler 2006; Dweck, Walton & Cohen, 2014). That being said, having these

relationships and comfortable understanding of one another can lead to other complications. Children are often more likely to vocalize their displeasure if they are comfortable enough with you to voice it. It is also clear the ability young children have of fundamentally understanding the limits of educators and pushing them when they know them deeply. This testing is by no means a reflection of negative behavior, rather an implication and reaction of having close personal relationships with the educators in place. It becomes the educator's job then to utilize their knowledge and skills to keep children focused and attentive to learning itself.

Limitations

Due to the nature of my specific role in the classroom and the unique virus issue presented to us halfway through the semester, the study itself had some limitations. Specifically, while my role as a participant/observer offered me many opportunities, it also limited the role and relationship I had with the children I was observing. As one of the two consistent adults in their academic experiences, I had steady relationships in place individually with each student prior to the study's commencement. These relationships offered my opportune moments to observe and collect data in certain instances as the holistic closeness we all shared allowed children to be comfortable and themselves around me. On the other hand, these close-knit relationships in place granted some children the opportunity to push back against opportunities to participate in new activities in ways that, had we just met and interacted for the first time may not have occurred. Having these close-knit relationships, afforded me an excellent window into the

real unfiltered desires of the children I was interacting with, but due to their comfort with me it also increased individual willingness to not participate if they so desired.

The number of children at the OCP itself, fifteen, turned out to be a bit of a limitation as well. For the most part the OCP usually has a population size of about 20-23 children. By engaging with smaller numbers less data was able to be collected experimentally. At the same time, the limited number of children also impacted the number of children being observed as a control group therefore giving less overall data to work with than could have been utilized for past sessions of the OCP.

Another limitation of the study was inconsistent attendance of students in both control and experimental groups. Due to the timing of the study, data began to be collected during Presidents week, March 9th to 13th. As the university did not have the week off our center did not close. The local public schools, however, did have a weeklong break. The reality of this was the likelihood of children at the OCP missing that week of school if they had older siblings. Attendance at the OCP was relatively consistent but attendance for a number of children was inconsistent enough that I believe it limits their personal data to the point of it meaning a lot less than other individual children.

COVID19 also played a huge limiting factor in this study. As mentioned previously, this study was expected to last 5-6 weeks and utilize observations from 15-30 small group and free choice activities. Due to OCP and the university shut down due to COVID19 on March 13th however, flexibility had to be utilized and in spades. For that

reason, all data collected and analyzed will be prior to this date and will only cover three weeks. COVID19 also limited opportunities to check in with children and observe to see whether their future behavior was affected by the mindset fostering activities as shut down of the center is expected to last through preschool graduation effectively ending contact with certain families. Unfortunately, due to the small sample size this study will not be generalizable, rather a diligent focus will be emphasized on creating a useful thick description of classroom events as they occurred.

CHAPTER 4: FINDINGS

As educators working with young children fostering a willingness to engage with activities voluntarily is a hallmark towards their ability to find academic success in the future (Dweck, 2006). Data through check lists and observations were collected in order to determine whether teachers themselves could design and utilize activities in their classroom to foster that willingness. Due to the nature of the development of preschool-aged children, an incredible amount of scaffolding is occurring. Children are building their foundations for the future. The researcher hoped that by developing activities and utilizing them with children, individual child willingness to engage with activities voluntarily might increase. The researcher quickly concluded however, that neither the experimental nor the control group displayed any substantial unwillingness to engage voluntarily. Children actively participated in activities and, for the most part, displayed skills linked to agency and decision-making during the entirety of data collection. As the reality of a longitudinal study became impossible due to the reality of COVID19, research focus shifted from the effects of the activities themselves to the nature of what encourages children to participate willfully in activities in an academic setting. Connections were drawn between willingness to engage voluntarily and mindsets that allowed those effects to be considered. High willingness to engage in activities was interpreted as a growth mindset while low willingness to engage was interpreted as a fixed mindset. Therefore, the preschool population, that demonstrated high willingness to

engage across the board, also demonstrated a high acumen for the utilization of a positive growth mindset.

High Group Participation

In this study, participation was viewed as a key component of the growth mindset. Those who have educated young people are aware of how important participation itself is to the likelihood a child is to enjoy school and find academic success. It goes without saying that active and engaged participation are two main objectives of those working with young people in an academic setting. To Dweck, finding ways to encourage voluntary participation gives individuals opportunities to build skills, not only in regard to the related competency, but in regard to voluntary engagement itself. When observing the classroom of children at the preschool (OCP) it was a priority to observe whether children were comfortable and had the physical, mental, and emotional skills to participate willingly in voluntary free choice activities as an individual. Data showed that in this specific group of children engaging and operating the morning session of the preschool in spring 2020 willingness to engage voluntarily in these free choice activities was overall high in both the control and experimental groups.

The first activity observed indicated a willingness for children to participate in drama play. Drama play was set up for a stage and audience seating the day observations occurred. Participation could include standing on the stage, engaging on the stage (i.e. singing, dancing, or talking to the crowd), sitting in the audience, or collecting tickets at the “ticket booth.” During free choice time it was observed that each child present that

day, other than Jacob, participated freely and willingly. Even Jacob participated willingly after a teacher checked in with him and reminded him of the different roles he was welcome to experiment with within the area. Numbers of participants in the area were limited to three individuals on the stage, three individuals (including the teacher) sitting in the audience and one ticket collector. For the reason of space, children who desired to participate after the full numbers were reached were turned away. The activity utilized a turn list in which children could place their name or have their name placed and receive a physical conceptualization of how long they had to wait. Children on the turn list are expected to find another acidity while they wait for an opening. In the classroom, this leads children to find and engage in other activities which often lead them to either forgetting or losing interest in the original activity they wished to participate in. Out of all the children of whom that utilized the turn list in a desire to participate in drama, only one, Jacob, needed any sort of reminder that drama play was occurring. All other children either observed themselves that there was an opening for them and performed necessary steps to re-prepare themselves for the activity or was able to check-in between other activities themselves that made unnecessary, for the most part, teacher reminders.

Children in both the control and experimental groups displayed pronounced and evident desire to attain self-control over their participation in these choice activities throughout the remainder of the observations. Participation in maker's table was the next observation I made. Maker's table is an artistic activity in which children use recycled materials to create art or inventions. Traditionally, maker's table, it should be noted, is an activity consistently high in interest and participation. Of the twelve children that arrived

at school the day of the observation, eleven participated at one time or another and in various degrees at maker's table. Number of participants at the maker's table are limited to four children and one teacher at a time. For that reason, children who wanted to participate when capacity was reached were asked to find another activity. Of the children that were asked to find another activity only two children, Baylee and Nigel, needed reminders that there was space available for them at the maker's table. All other children either observed openings of which they filled or wandered by at opportune moments in which they were not barred access a second time.

When given the opportunity to participate, it is important for educators working with young children to encourage and remind children about specific activities and norms in order to assist children getting the most out of their academic experience. That fact became especially prevalent when engaging and collecting observations during outside free choice time. After the previous outside activities had garnered less frequent participation than previous indoor ones, effort was made specifically to help remind children of the activity being observed that day. That day children were engaging in groups of three or smaller with a teacher in order to plant seeds in order to bring home. Step included filling an individual pot with soil, pressing the seed into the soil, covering the seed and lightly watering the seed. Children were told they would be able to take their plants home when class was competed. Interest started quickly and maintained itself throughout the entirety of outside time. Of the fourteen children present that day, only two did not participate in planting a seed, doubling the participation total from previous outside activity observations. Interest was clearly high in the activity from the get-go but

due to the reality of number of children at a time the scenario lent itself perfectly to one in which reminders were even more necessary. Seven of the twelve, more than half, of the participating children had to be reminded or alerted to space at the activity. This points to the importance a teacher plays outside of their traditional roles, in this case, a timekeeper/contexualizer role.

In a unique way, dance party, the final activity from which I collected participant data, is both a special activity and a normalized one. Dance parties are an activity we engage in as a class every Friday as the final activity for the week. Two or three developmentally appropriate songs are played while children and teachers dance. One teacher plays DJ and periodically stops and slows down the music. Participants are expected to listen for these changes, freeze when the music and stops and lower their body to the floor when the music's volume decreases. Dance party, as an activity goes, is decently popular within the class population. Children who do not wish to participate are asked to either stand on the outside of the dance area or to grab a chair and sit. Of the fourteen children present for dance party that Friday, nine children participated voluntarily for the entirety of the dancing, three children participated very minimally or not at all and one child, Kenny, participated for about half the party before sitting down. As was mentioned previously, as an expected activity compared to a new activity, participation is going to be affected. In this case, as the activity is generally seen by the population as a positive one, participation remains relatively high. Overall, this group of fifteen children showed consistent willingness to engage in unique activities presented in a variety of ways in the classroom environment.

Peer Influence on Participation

Data collected indicate peers heavily influenced willingness to participate in activities. There were three pairs of children I noticed utilizing pairs and groups consistently in the classroom during free choice activities. The pairs are Belle and Mary, Zephra and Anna, and Layton and Nigel. The first two pairs operated predominantly in a positive light that emphasized shared interests and friendship while the last pair operated almost competitively in their peer relationship with one another. Out of the observed social group members only Belle was a member of the control group, all other children discussed in this section belong to the experimental group. All three of these relationships existed in more-or-less similar terms prior to the start of data collection.

Of all the child pairs I examined in the classroom through my data, Belle and Mary's connection was the most evident. The two children engage in the first activity if the day together, decide similar activities throughout the day and often participate in daily routine activities such as snack together. Evidence indicating that this relationship influenced willingness to engage in new or unique activities showed itself in a number of free choice activities both inside and out including drama play, maker's table, athletics, woodworking, and cooking. Evidence of their peer relationship included shared willingness to engage in an activity as well as shared unwillingness to engage in activity.

Participation in the drama area provided an excellent opportunity to observe how Belle and Mary's relationship affected willingness to participate in activities. The drama area in the OCP is designed to provide children opportunities to explore scripts they have

seen out in the world around them. At the time of observation, the drama area is set up as a theater with a stage and audience. Children who wish to perform on stage can dress up with play clothes, jewelry, and hats before dancing on stage or singing into a pretend microphone. On the day of data collection, Belle gravitated to the area initially upon entering the classroom, but at this time, Mary had yet to arrive. Belle began to dress up for a show with Miles. Miles is now ready to perform and looks to Belle to see if she will join him. Belle instead took the advice of a teacher and sat down to watch Miles instead. Belle remains in the audience as two other children, Kenny and Layton, join Miles on stage. Around that point, Mary arrives at school, completes her morning obligations, and joins the drama area, which at this point is nearly full. Mary sits with Belle and they plan with a teacher to be the next group on stage. When their turn has arrived, the hesitancy Belle displayed earlier is replaced by a confident excitement as the two get play clothes and ornaments on. Belle's willingness to wait for Mary to engage, though predominantly the normal feature of the pair, was in fact often reflected in Mary's own behavior as well, demonstrated by data collected during maker's table. That morning the roles had shifted, and Mary arrived at school prior to Belle. Mary joined the maker's table, a craft area in which children use tape and other recycled materials create art, ideas, or inventions, and began engaging with materials. Mary did not display the tell-tale hesitancy to engage without Belle that Belle did without Mary. It should be noted however that despite a lack of hesitancy to perform without her peer, Mary did make a point to prioritize Belle. When Belle arrived at school Mary's attention was called naturally to Belle saying goodbye to her parent and she pulled a seat out next to hers.

Mary to teacher: “This seat is for Belle, ok?”

Mary demonstrates a desire to continue participation in an activity due to the fact that her peer is now involved. The relationship in place between Mary and Belle demonstrates their desire to play together.

This desire is further displayed in their willingness to participate in new activities including Broomball. During outside time, despite neither having extended experience with athletics outside of school, both encouraged one another to participate in Broomball. Broomball, a simple game in which a teacher and a line of students hit a rubber ball back and forth with a broom, demonstrates children’s developing gross motor skills. Despite the lack of experience the pair demonstrated animated willingness to participate together as a team. Despite their individual skills and leanings, the evidence points to their relationship influencing them to participate in activities they might be more hesitant to participate in alone. The evidence also shows the pair regularly missing opportunities to participate when the other pair member does not prioritize the activity. Neither child expressed real interest in woodworking or cooking, however, it should be noted that Belle seemed at least intrigued by the cooking activity, that is, before Mary made it obvious she was not interested. The only data collected in which one of the pair members participated in an activity without the other is the dance party and those findings were expected. As far as dancing goes the two seem about as different as can be, Mary being an adamant dancer while Belle prefers to not engage during dance parties and prefers to watch. To me, as a participant observer, it is fascinating to watch a pair be so codependent yet have such a contrast of feelings about an activity.

Another peer relationship that demonstrated peer's influence on willingness to participate was the relationship between Zephra and Anna. The data shows the pair engaging in maker's table, extended athletics, planting, and dance party together. Unlike Mary and Belle, there was little data collected that showed an unwillingness on the part of Zephra affecting the willingness of Anna or visa-versa. The only activity in which neither child participated was cooking and, as mentioned previously, only three children were able to participate in that activity. There was evidence of Zephra engaging in activities separately from Anna. Unfortunately, Anna was absent during one of the days of data collection so it is unknown how her presence may have affected Zephra's participation that day. It must be noted that time and time again both Zephra and Anna displayed willingness to engage separately from one another.

> Anna to Zephra: "I don't really wanna do play dough, but you can do play dough while I do maker's table and we can play together after!"

Both Anna and Zephra display autonomy and initiative yet still routinely prioritize the presence of one another insofar as it affects their willingness to participate in activities. This is a prime example of peer relationships dictating, at least to a small extent, action, or inaction.

Both Anna and Zephra are regulars at the maker's table. The day data is collected happens to be the day Anna is scheduled to arrive at school about a half hour later than usual, so Zephra arrives before her. Zephra moves around the classroom experiencing different activities with different peers and teachers before ultimately deciding on spending some time at the maker's table. When Zephra is working, Anna arrives through

the back door and walks through the classroom to put her items away. She and Zephra note one another and smile at one another.

Zephra to Anna: “Good morning Anna!”

The two individuals enthusiastically note the presence of one another and though they do not allow it to fully dictate the activities they participate in there is no doubt that the relationship itself affects both children’s willingness to participate as a whole. As the two children value one another, their mutual presence motivates each other’s participation in ways that are difficult for educators to replicate.

A third relationship pair I observed that showed the influence peer relationships have on child’s willingness to participate was the relationship between Layton and Nigel. As noted previously, this relationship seemed to be characterized more by competition than desire to spend time with one another. It should also be noted that at times the presence of one or the other actually seemed to prompt the exit of the other individual. The two simultaneous desire for agency and sole control seemed to occasionally encroach on the desires of the other. For that reason, this data might point to a contrasting result of utilizing peer relationships in the classroom.

The two children demonstrated strong willingness to participate in classroom activities and, it should be noted, maintain interest in many similar areas. The data suggested that both Nigel and Layton are more comfortable playing independently, with a teacher or parallelly with other children. In fact, many of the activities from which data was collected has time lapses of Layton and Nigel engaging parallelly. Data and observational data suggest however, that when the two individuals were forced to interact

with one another it dissuaded both individuals from continued participation and resulted in displays of frustration. The relationship between Nigel and Layton examines the role antagonistic relationships can have on individual child willingness to participate in classroom activities

Both children participate weekly in dance party and both outwardly display signs of enjoyment. The day of data collection both children began dancing as usual, oblivious to one another. When one another's presence was made salient however, they would seem to gravitate towards one another, stand right in front of one another and gesticulate aggressively. No physical aggression or interaction actually took place before teachers separated and distracted the two. Throughout the rest of the dance party, though no more confrontations occurred, both children exchanged glances at one another.

This aggressive exchange was a common exchange between the two individuals. The two children shared a small group, a group that meets every day to engage in a group activity. Both Layton and Nigel were present for all three small group activities, paper tearing, puzzles, and the what-do-you-notice activity. Layton participated in each small group while Nigel participated in every small group other than the puzzles. During the puzzles activity Layton began interacting individually with the puzzles right away as the teacher worked to include and interest Nigel. One conflict emerged between the two as Nigel insisted the only puzzle, he would do is the one Layton was working on. Despite working to discuss the problem Nigel was adamant that was the only puzzle he wanted. By the time Layton was done with the puzzle, Nigel had shut down and any willingness to engage was gone on his part.

Surprisingly, despite the seemingly normalized behavior of conflict, there was willingness in both children to interact with one another. This activity and subsequent actions by these two points to the important notion that relationships between preschoolers are often complex and rooted in emotions that we as adults may have a different understanding of. Utilizing developmentally appropriate opportunities while carefully onlooking interactions gives young children who might be experiencing conflict a chance to work through those differences. Though Nigel and Layton never displayed friendship categorically in a way that could be interpreted as such, but I was clear, for better or worse, that they noticed one another's presence.

Utilizing relationships based on love, friendship and respect between peers is an important process for teachers as they hope to motivate academic participation. At the same time, understanding and utilizing relationships in which things are less cut and dry is also incredibly important in helping children develop healthy attitudes about life and working with others. There will always be people you want to work with, and it goes without saying that the motivation to work within groups that have these relationships in them is high. That being said, finding ways to interact successfully with individuals who are diametrically different than us or even extremely similar are just as important skills for children to build when working towards fostering of a growth mindset. Insofar as academia, preschool is often children's first opportunity to spread their wings. One of the realities of academia, however, is the necessity of interaction with others. Educators would do themselves a service by being aware of this fact and observing relationships as they develop within their classroom as a means of encouraging individual participation.

Diversifying Group size, Activities and Teachers

Though somewhat across the board in nature, the evidence found in data collected through check lists coupled with first-hand qualitative knowledge points to a number of important findings that might be utilized to further explore participation motivation in young children. Primarily, the knowledge that, as a whole, preschoolers are developmentally less likely to experience issues engaging in new activities they might struggle with. This points to a genuine need for the educators and caretakers of young people to prioritize early and often children's participation and enjoyment in a variety of activities. Keeping activities fresh and exciting, that is utilizing activities not offered daily, it is clear that interest is garnered and built upon in the hearts and minds of children. The vast majority of children in the classroom demonstrated no regular hesitancy transitioning between activities, interacting with Legos, trains, makers table and playdough all in the morning during the forty-five minutes or so of free choice. Data collected during these activity times showed a consistent willingness to engage by a majority of the classroom population regardless of activity.

Through the data, we reasoned earlier that this specific group of children displayed a consistent willingness to volunteer to engage in activities. Something interesting that the data seemed to suggest was activities in which group size was limited, participation seemed to be higher. Activities such as drama play, planting and cooking were all activities in which smaller than usual group sizes were utilized yet did not affect the actual number of participants. Activities in which group size was limited and

maintained in an effortful way by a teacher increased group desire and willingness to participate. Data collected during drama play emphasized this point. Participation in the drama area is limited to three performers at a time, two audience members and a ticket booth worker. Though it is not every child's wish, most children prioritize their own time on the stage performing. For that reason, it is necessary to utilize a turn list on which children can gain a physical conceptualization how the amount of time they must wait. Similarly, a turn chart is often used for activities in which numbers of participants is limited. That competition for participation, driven by the relatively small access, leads children to be motivated to participate. Every child present the day of data collection, whether or not their behavior was per their usual, engaged in drama play in at least some regard. High levels of participation also marked the planting activity. Participation was limited to three children at a time with assistance from a teacher. Every child expressed interest, so much in fact, that when one child of each group of three left, another would immediately be ready to replace them. For preschool children, prioritizing an activity in such a direct, concrete way is rare, especially displayed consistently across the student population as a whole. It can be deduced that a general interest in the activity, coupled with the competitive nature of participation in groups of small numbers itself can be a high motivator for participation in young people.

The data also showed higher participation in activities if they were being led by a teacher who was new in that role. It should be noted the relevancy of utilizing different teachers with unique personalities. Humans inherently connect in individual and unique ways. Therefore, providing children with opportunities to engage and build relationships

with teachers with unique backgrounds is incredibly important to their general development as well as the fostering of a positive individual growth mindset. It is possible that children develop motivation to participate as a means of creating opportunities to interact with adults in a somewhat unique context. Due to the nature of the OCP, college-level child development students fill the majority of the staff. As their time in the classroom is considered practicum, these university students are expected to work and grow in the classroom. Part of that growth includes the development and implementation of a free choice activity. For many of these teachers it is their first opportunity to design and engage with an activity of their own development. Not only are these activities often very nuanced and interesting but they also give children an opportunity to explore their relationship with the individual teacher leading the specific group. Data collected for the planting experiment coupled with data and experiential descriptions from two cooking activities points to this possibility and supports it. These children seemed to use participation as means of controlling their group environment as well as an opportunity to build relationships.

It was previously noted how popular the planting activity was and the effects the group size had on popularity was explored. Another aspect of the activity to explore insofar as how it motivates children to participate is the desire to build and foster relationships with adults. The planting activity was an individual student-teacher's planned free choice activity and therefore was led and developed by the teacher. Despite the adult student's participation in the classroom up to this point, children were presented with a new avenue to interact with her through her activity. It appears likely that the mere

presence of this teacher in this new academic light gave children a motivating reason to participate. One, to actually engage with an activity that sounded enjoyable to them and two, to explore connections with a new and exciting adult. This phenomenon was continually observed as adult students began designing activities more and more regularly. Unfortunately, due to the nature of the semester, most adult students planned to implement their free choice activities after spring break, a break from which we never returned due to outbreak of COVID19. Therefore, opportunities to observe and collect data was limited to two student-teacher-led free choices. The second, after planting, was cooking. It must be noted and should be evident however that insofar as the observed activity of cooking only three children participated. Cooking is an activity, however, that occurs at least with some regularity. Due to that reality it is possible to compare this free choice cooking activity, done quickly at the end of the free choice time in a bit of a rush for snack preparation, to past snack preparation activities done with more adequate time and space preparations. Earlier in the semester children engaged in an activity in which they "made" their own ants on a log. Children were expected to put peanut butter on a piece of celery and then place raisins on that peanut butter. While the observed cooking prep activity took under ten minutes, the ants on a log prep activity received substantial interest and lasted over a half hour. There is no doubt that time and resource limitations played a role in the lack of interest in the activity observed for data collection but there must be something more. Every child present that day prepared their own ants on a log for snack. A noticeable difference was the teachers present for the activity. For the observed activity cooking was supervised and ran by a student teacher children had

extended experience with interacting previously. For the more popular cooking activity, ants on a log, the group was led by a student teacher with which few children had had opportunities to engage with one-on-one. It appears likely that young children's willingness to engage with activities can be influenced by the presenter or leader of the activity themselves.

The fostering of growth mindset starts with the conceptualization that you, as an individual, can accomplish a great deal through hard work. By giving children varied experience we give them a greater likelihood that they have the desire and foundational skills in place to continue to explore a variety of activities as they progress. The research shows that a willingness to engage with activities across domains is highly connected to a growth mindset (Dweck, 1999). Educators working with young learners should work to promote a wide array of activities across domains to help children build the foundational skills necessary towards flexibility and openness towards an activity, as well as, a healthy connection between effort and success. Varied activities allow children in the classroom to expand upon their gifts and improve upon their weaknesses. All activities observed for data collection present activities that cover a variety of domains, all of which are relevant to activity diversity. The planting activity presented an excellent opportunity for the data to support the idea that new activities promoted greater child willingness to participate in activities. As planting was not offered every day, children recognized this activity as new and potentially an activity that would not be available in the future. Motivation to participate in the activity was high for the entirety of the data collection period which

reflects the influence unique activities play on individual willingness to participate in activities at school.

CHAPTER 5: DISCUSSION/IMPLICATIONS

The more that is learned about mindsets the more obvious their connection to intelligence attainment and acumen building is. Working to develop a growth mindset, that is, seeing that your intellectual experience is malleable, goes an incredible way in assisting develop of important ideas about life in general. Whereas certain individuals fall into the trap of fixed mindset and fail to progress academically as far as they could due to their own worries and insecurities. The research states that one of the most important things we can do as educators for children we work with is work with them to develop healthy mindsets about effort, progress and intelligence itself (Boaler, 2016; Dweck, 1999; Dweck, 2006; Dweck, 2010; Dweck, et al., 2014; Rhew et al., 2017). By establishing healthy growth mindsets educators help to frame effort as a necessary function of intelligence attainment. Children begin to see that challenges are not an indication of their ineptitude but rather opportunities for them to experiment and grow. When individuals begin to see intelligence as a trait that can be nurtured rather than one that certain people are indiscriminately endowed, they are more likely to take ownership of their individual academic situation. For our youngest learners in preschool, creating a foundational connection between effort, participation and growth is extremely important. Therefore, if as educators we are striving to produce confident students that possess pride in their work as well as ability to flexibly overcome issues, fostering and implementation of a growth mindset is necessary. For our youngest learners, this implementation begins with a child's willingness to participate.

One of the most important take aways from the research itself was how broad the influences are on a child's willingness to participate. Participation is seen a necessary component towards mindset growth. The research shows however, that there are innumerous characteristics of the classroom that affect individual willingness to engage in activity participation. Observations and data point to the existence of a classroom system, a system that involves many different parts, that influences an individual's willingness to participate. Importantly our youngest learners look for cues in their environment on what behavior is expected (Hearron & Hildebrand, 2013). The influence peers, group size, teacher relationships and activity choice have on the classroom itself affects individuals within that classroom. Due to this fact, the effect and connection between the designed small group activities and willingness to participate was difficult to isolate. In fact, due to the rest of the system's influence on children's participation, I was unable to concretely observe the teacher's influence on the growth mindset in isolation. Due to this, classroom nuances were able to be explored insofar as how they affect participation. Many other characteristics of a classroom, some explored in the data today, affect an individual's willingness to participate, especially as preschoolers experiencing their first academic steps. Therefore, time and energy need to be devoted to exploring what other characteristics a classroom can utilize that fosters positive growth mindsets.

Many students experience play through exploration and experimentation, both qualities that accept the experience as new and exciting rather than predictable. When a student does not have expectations for the activity their ability to conceptualize what being "successful" and "failing" drops allowing them to simply interact with the activity.

Older children form quicker expectations for activities as, generally, older children have experience with more academic situations and therefore have developed expectations for them. The importance of learning experiences in early childhood education settings can influence children's future learning goals for better or worse (Dweck, 1999). For that reason, mindset intervention may lend itself to preschool children extremely well. Developmentally, we talk continuously about foundational learning and giving young children the skills to be academically successful for the long haul in preschool. During these preschool years, foundational connections are made that last not only the rest of these children's academic careers, but for many, the entirety of their adult lives (Carlton & Winsler, 1998; Merzenich, 2016). Willingness to engage confidently without worries or ego is a skill that lends itself to nearly every aspect of academia. Therefore, is it not necessary to devote more time and resources to prioritize that skill building? Mindset implementation and fostering with preschool students may not contain as much concrete lessons, rather, prioritization should be with helping children make a confident connection with participation in academia. Educators must work to assist children in developing healthy attitudes about challenges, about success and about how important the process itself is towards outcome-based goals. In the future it would be fascinating to look further into other preschool populations to measure whether willingness to engage voluntarily is similarly high or whether this specific population is exceptional in that way. Similarly, it would be extremely interesting to look further into the connection between individual growth mindset attainment and specific actions teachers can take at the preschool level to foster that growth. Individual mindset interventions for young children

displaying the forebearers of fixed mindset ideals would also be interesting to consider and explore. Considering the raw willingness of the OCP population with which I worked discovering whether willingness is so high across the board in preschoolers is incredibly important. For if that willingness is similarly high across the entire population, educators are put in a favorable position of building foundationally rather than working from behind. By evaluating mindsets and fostering growth mindset ideals into our youngest learners we give them the necessary information and skills when they are most academically flexible. Doing so gives them the best opportunity to find future academic success.

Utilization of peer relationships is avenue worth consideration insofar as things educators can do to encourage activity participation. As social creatures, we as humans are motivated to engage with one another to learn and survive. On top of that, these connections we make are organized schematically in our minds by how much or how little we want to be with that person. This phenomenon seems to develop and already be prevalent among four-year olds in preschool. As children develop and look to make sense of the world around them, they start to make peer connections with others as a means of confirming their realities. Once these relationships are formed and connections are made, they motivate us and frame our experiences. From personal experience, I would be more likely to participate in an activity I am ambivalent about when a group of people I value are also participating than I would be to participate in an activity I valued but I had to share space with people I was ambivalent about. Preschool children already have connections and relationships in place in which they rank schematically in their own

brain. For that reason, as with most humans, individual children value being with individual peers.

Several children in the OCP prioritized specific peer relationships so intently that observations show it affected what activities they participated in and when. Preschool children aged three to five are experiencing a transition between stages of Erikson Social-Emotional developmental framework (Amidon, Monroe & Ortwein, n.d.). Children begin preschool nearing the end of the autonomy vs. self-doubt stage. This stage is characterized by a developing an individual understanding of agency and the world around them. This stage helps children gain confidence in themselves and their own abilities. When children have issues developing in this stage it may display itself as loss of independence or low self-esteem. It seems likely that children with difficulties developed during this stage might follow the leadership of a peer that had no such developmental trouble. Erikson's next stage, Initiative vs. Guilt, bridges the gap between social-emotional development and willingness to lead and follow. During the Initiative vs. Guilt stage young children are learning to work with peers while still prioritizing individual goals (Amidon, Monroe & Ortwein, n.d.). It gives these children a means of controlling the world around them but also their first opportunity to harness their realities. During this stage it is likely that certain individual children feel less guilt than others when acting independently to their own gains. At the same time, it is likely that children experiencing this stage might bolster their confidence and willingness to initiate engagement by utilizing the company of a trusted peer.

It was clear when collecting data that peer relationships drove certain individual students to participate in activities they may not have participated in otherwise. Therefore, it might be interesting to consider further how relationships can be utilized in a sort of dual mindset development intervention. Further information could also be gathered about individuals within a peer group and how these individual mindsets affect other mindsets of individuals within the peer group. Consequently, relationships in which children are driven away from each other present interesting research possibilities. Just as some children are drawn to participate in activities by the presence of a peer, children can be dissuaded from participating if they do not want to share space with someone. It would be fascinating to observe and collect data in regard to what makes an individual prototypical in the preschool classroom and therefore likeable, as well as, what makes individual children worrisome for other children. Utilizing peer relationships as a means of motivation should be explored with all age groups but, when considering the implications of preschool development, more effort should be made. These peer relationships possess the power to motivate participation in ways that we as educators simply cannot replicate. Finding ways to utilize them productively and consistently with our youngest students should be a priority, that, in the long run, increases willingness to participate in the classroom across the board.

Exploration into group size, unique teacher personalities and diversity of activities can all be expanded in the future. Evidence from the data collected seems to acknowledge the existence of more than one other motivating factor insofar as working with children to increase willingness to participate and facilitation of a growth mindset. Children at the

OCP appeared to be motivated by the number of people participating in a group at a time, as well as, how competitive accessing an activity was. Individuals seemed to be more likely to want to participate in activities that maintained low numbers and in which they had to wait a turn for. Of course, the only activities that required turn lists were ones that were highly popular to begin with so it could be a type of chicken and egg scenario insofar as turn lists go. Further research could examine the connection between willingness to participate and competition for ability to participate to see if the threat of exclusion affects individual willingness to attempt engagement. Further research that focuses on the effects of group size on individual willingness would also be fascinating and impactful towards discovering influences on willingness to participate and the study of mindsets as a whole.

Data collected also showed individual teachers playing a role in shaping motivation. Certain children seemed more willing and motivated to participate in activities run by certain individual teachers. This repoints to the claim made earlier that peer relationships impact student willingness to engage in activities. Therefore, employing and utilizing an array of different adults seems helpful, not only in the motivating power for students, but also insofar as an accurate preparation for life in general. Research that observes and studies individual student connections with individual teachers or caretakers might provide information that could be utilized in training teachers in developing strong interpersonal relationships with children and families. These relationships clearly hold the key towards willful participation and

productive academic progress, as such, they should be explored carefully in all ages and developmental levels.

In the same way, diversifying activities is an obvious way to increase interest in and willingness of students to participate in said activity. Giving young children a varied choice in activities allows them to test different skills and to challenge themselves naturally apart from the stress of outward assessment (Dweck, 2007; O'Keefe et al., 2018). Evidence from data collected showed that individual OCP preschool children were much more likely to be interested in an activity offered exclusively that day versus one that had been normalized into the expected academic routine. Educators can encourage active participation and interest by consistently changing their classroom along with the activities offered within it, around. With preschool children developing agency and building skills, this diversity of activities is paramount towards successful development, aside from growth mindset and willingness to participate. Variety of activities gives children a variety of opportunities for them to develop confidence and the individual skills necessary for future academic and cognitive success. In fact, the research shows that through the diversification of activities, educators are able to further promote unique interests (Epstein, 2007; Hearron & Hildebrand, 2013). The fact that it is likely there is a connection between variety of offered activities and willingness to try new activities speaks to the fact that the preschool years line up exceptionally well with the foundational timeline for mindset implementation.

CHAPTER 6: SUMMARY AND RECOMMENDATIONS

Preschool children are growing, learning, and exploring every day in what, for many of them, is their first academic experience. Children are given opportunities to build their foundational skills in ways that are expected to translate into the remainder of their academic journey. As educators it is part of our responsibility to give children the means and opportunities to find their own success. Through the understanding of mindsets, specifically growth and fixed mindset, we are better able to conceptualize the skills necessary for our children to attain before moving to the next level. Optimistic confidence in one's self abilities, attentive interest in the world, willingness to try new things, ability to functionally conceptualize what setbacks means and what success means, these are all skills and traits that go hand and hand with mindset intervention as well as characteristics of a successful student (Boaler, 2016; Boaler, 2019; Dweck, 2007; Dweck, 2016; Robinson, 2017). For those reasons, by utilizing a growth mindset within the preschool classroom and by fostering a willingness in children to participate in a variety of activities voluntarily, educators help children develop the skills necessary for their own positive growth mindsets. Educators do not possess all the answers yet are given an opportunity and responsibility to tirelessly strive to help students be the best they can be. By working to help children develop a growth mindset educators are giving them the skills to be confident, successful and happy inside the academic world and out. Educators working with preschoolers can jump-start the foundational learning associated

with positive growth mindsets by fostering a healthy appetite in their children to participate in academic activities.

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APPENDICES

APPENDIX A: SMALL GROUP PARTICIPATION CHECKLIST

Name	Date	Activity	Competency	Present	Enthusiastic	Willing	Willing w/encouragement	not willing	not able

Key

Present: child is present in the group

Enthusiastic: child is engaged with eyes and body facing towards the object or person, constant interaction with materials, upturned mouth, 10-20 mins

Willing: child is engaged less than constantly but participates with no scaffolding, engages with materials, finishes early

Willing w/ Encouragement: child is engaged but needs scaffolding to remain motivated or engaged, rushes through activity, minimum exploration not willing: child is unwilling, with scaffolding, to participate in the activity not able: child is not able to participate, either physically due to activity or emotionally due to energy intensity

Date: MM/DD/YY

Activity: Name of Activity Competency: The main skill or idea the activity is designed to engage in children

APPENDIX B: FREE CHOICE PARTICIPATION CHECKLIST

Date	Name	exp/control	Activity	Domain	Volunteer	Volunteer w/ reminder	No participation

Key

Exp/control	whether the child is a member of experimental or control groups
Activity	Activity name
Domain	Developmental domain the activity is addressing (i.e. socio-emotional, gross motor)
Volunteer	child voluntarily engages in the free choice activity with no perceived encouragement from adults
Volunteer w/ reminder	child voluntarily engages in the free choice activity after encouragement from adults
No Participation	child does not participate in free choice activity

APPENDIX C: FAMILY INFORMED CONSENT FORM

INFORMED CONSENT

Growth Mindset and Agency in the Preschool Classroom

My name is Isaac Coppock and I am the Assistant Teacher at the [university campus preschool]. I am also conducting research in connection with my master's degree in education. I am conducting this research study to examine the connection between mindset interventions and an individual's willingness to participate in new activities. Typed informed consent notices will be printed and sent home individually with families. If you volunteer your child to participate, he/she will be asked to participate in activities designed with the purpose of fostering positive individual growth mindset. More information about growth mindset can be found in the attached document. Your child's participation in this study will last five weeks, approximately one small group session activity or about fifteen minutes per week. Participation will take place during your child's regular small group time grouped with one to three other children. All other research participation will take place according to your child's willingness to volunteer to participate in regular OCP activities throughout the rest of the week. No external pressure to participate beyond verbal encouragement will be utilized.

Your child's participation in this study is voluntary. They have the right not to participate at all or to leave the study at any time without penalty or loss of benefits to which they are otherwise entitled. You also have the right to decide your child will not participate without aforementioned penalty or loss. There are very minimal possible risks involved for participants. These risks are based around individual feelings of uncertainty and slight

discomfort around new activities or ideas. There are possible benefits to this research, particularly in growth mindset development, increased willingness to engage in new activities and a greater individual connection with learning.

It is anticipated that study results will be shared with the public through presentations and/or publications. Any information that is obtained in connection with this study and that can be identified with your child will remain confidential and will be disclosed only with your permission. Measures to insure your child's confidentiality include using pseudonyms for all participants, offline data collection and locked storage of data. Raw data containing information that can be identified with your child will be destroyed after a period of 6 months after study completion. The de-identified data will be maintained in a safe, locked location and may be used for future research studies or distributed to another investigator for future research studies without additional informed consent from you.

This consent form will be maintained in a locked filed cabinet in the [campus preschool office] and will be destroyed after a period of 5 years after the study is completed. If you have any questions about this research at any time, please call or email me at [email] or Hyun-Kyung You, OCP Program leader, at [email].

If you have any concerns with this study or questions about your rights as a participant, contact the Institutional Review Board for the Protection of Human Subjects at [email] or [phone number]. PLEASE SIGN ON BACK OF DOCUMENT

Your signature below indicates that you have read and understand the information provided above, that you willingly agree your child may participate, and that you may

withdraw your consent at any time and discontinue their participation at any time without penalty or loss of benefits to which you are otherwise entitled.

Signature Date

_____ _____

APPENDIX D: CHILD ASSENT

8 YEARS AND UNDER CHILD ASSENT FORM
Assent is only obtained after the parent has consented.

Growth Mindset and Agency in the Preschool Classroom

Hi, I'm Isaac and I'm going to school, too. I am interested in trying new ideas and coming up with ways to solve mistakes. I would like you to join me during small group time and try out the activities I have planned for you.

If you want to rest, or stop completely, just tell me. You won't get into any trouble!. In fact, if you don't want to participate you don't have to. Just say so. Also, if you have any questions
about what you'll be doing, or if you can't decide whether to do it or not, just ask me if there is
anything you'd like me to explain.

Your parent(s) have already told us that it is all right with them if you want to participate. Remember, you don't have to, and once you start you can rest or stop whenever you like. (FOR VERY YOUNG CHILDREN), receive verbal consent?

__ Yes

__ No

APPENDIX E: MINDSET INFORMATION FAMILY NEWSLETTER

What are mindsets and why are they important?

Learning is something that many of us take for granted. As humans, we learn the entirety of our lives, from birth to death. Knowledge is considered among the forefront of learning's goals, to learn information in ways that allow representation of facts and figures is how knowledge and learning has been measured for quite some time. Consider however, how temperament connects to learning. How does how an individual frame learning and knowledge important to their success? How does a person overcome challenges to reach their goal of learning? In the last twenty years the existence and effect of mindsets on learning and self-efficacy has begun to be examined. Mindsets explain the ways individuals frame experiences, both positive and negative. A great deal of research has been done in regard to mindset intervention with primary school aged children, but sparse resources exist connecting mindset implementation with kindergarten or younger learners. As a preschool practioneer I immediately became interested in whether this connection was meaningful. My goal is to utilize activities during small group time with the goal of individual fostering of growth mindset in children. Later on, I plan to measure whether these activities had any effect on individual children's willingness to engage in new, challenging activities. Through detailed planning, focused measurement and thorough consistency, utilizing your help, I have high hopes for what I might discover.

Carol Dweck, one of the minds at the forefront of mindset research, emphasizes how profoundly the view you adopt for yourself affects your life. The view one adopts for oneself is for all intents and purposes their mindset. The two mindsets researchers focus on are the two ends of the mindset spectrum, fixed and growth mindsets. Having a fixed mindset means an individual sees their and other's intelligence as set. Those with fixed mindsets believe that individuals are only capable of success due to preset skills and intelligence. Those who foster a fixed mindset have been shown to have an overriding need to prove themselves and their worthiness. This is due to the reality that those who foster a fixed mindset see their worth through success. Those who utilize a growth mindset, on the other hand, are less likely to feel a need to prove themselves because they see their basic qualities are things that, through effort, can change. People who foster a growth mindset are more likely to frame challenges and failures in ways that can be decoded into future successes and where as a failure might shut a person with a fixed mindset down, those with growth mindsets will understand failure is part of progress. Growth mindset utilizers do not believe that everyone is capable of individual genius, but rather that all individual's true potential is impossible to see because it is impossible to see what the individual accomplishes over years of training, passion and toil. Dweck believes that all of us lie somewhere on this growth-fixed spectrum. Therefore, as

caretakers of children both at home and in school, it is part of our responsibility to help mediate and encourage a mindset shift in our children.

In the past, academics had a very cut and dry way of defining success. Academic success meant speed, accuracy and diligence but everyone was expected to commit to one or few ways of accomplishing academic goals. Even today, in some countries, individual children are broken up and academically placed based upon academic test results. Children deemed to be more intelligent are given more opportunities to be successful. The issue becomes how does one determine a "level" of such a unique thing as intelligence? In the past and in countries still utilizing such systems, intelligence is equated to ability to perform on an exam. Knowing that intelligence is utilized and displayed differently in different people how can we justify how many individual children are swept under the rug in this system? Carol Dweck, among others, began research into mindsets at the beginning of the 1990s. Dweck discovered that, like many of us understand, intelligence varies from person to person. What Dweck found to affect student's ability to be successful was their own mindset and their own beliefs about their abilities. With this knowledge it is paramount that educators strive to emphasize and utilize growth mindset over fixed mindset in their classrooms regardless of age.

Finding ways to create consistency in children's lives is something educators constantly consider. Partnerships between educators and families makes this consistency possible in a way that otherwise might be very difficult. Creating consistency, especially in messages about mindset, is important for individuals, adult and child alike, who are working to establish their own growth mindset. Two of the most important roles adults play in helping children develop healthy mindsets are contextualizing when a child experiences success and when a child experiences failure. At the [campus preschool], caretakers are expected to practice process-based feedback. Process-based, rather than performance-based feedback, focuses on highlighting the child's effort in their progress rather than the final outcome. As children grow into young adults, process-praise will encourage them to push themselves. Performance-based feedback, specifically praise, has been shown to create anxiety in individuals and shifts them toward a fixed mindset. Individuals will be less likely to push themselves if they feel a certain outcome is necessary for praise. Individuals may feel less inclined to try new things in hopes of preserving their intelligence. A perfect example of a fixed mindset, individuals begin to believe that pushing themselves to improve actually lessens their perception of self-value. While framing is incredibly important in how we encourage the young people in our lives, how we frame failure is just as important. Many individuals, adults and children, who utilize a fixed mindset avoid activities that might end in failure. Failure and challenges are often avoided actively. The research however states that when we make

mistakes is when our brains make the most growth. It becomes evident that, as educators and parents, how we view and discuss setbacks is important. Reframing setbacks as "not being there yet" instead of "failing," helps children see that challenges are part of life and that overcoming them is part of what learning is all about. As the caretakers in these children's lives it is our duty to promote learning and growth most consistent with expected future success. By encouraging a healthy drive and ability to overcome challenges through growth mindset, it is my belief and the belief of many like-minded educators, that we can greatly impact our children's future strengths and ability to be successful in the future.

For my thesis I am hoping to measure the correlation, if any, between utilization of growth mindset fostering activities and individual preschool children's willingness to engage voluntarily in new or challenging activities. During small group time, I personally will engage two separate groups once a week. During this time, we will transition through a set of five small groups that range from discussion to fine motor and dramatic activities. The goal of these activities is to give a diverse repertoire of experiences to children while scaffolding with mindset implementation. During the weeks of data collection, I will present the entire class with a new activity during free choice time. I plan to record individual children's willingness to participate in these free choice activities and to see whether there is any correlation between willingness to engage in the new activity and the planned small groups. I look forward to working and learning with your children, if it is your choice to allow me to do so.

If you have any questions or ideas please do not hesitate to contact me, [email] or Hyun-Kyung You, at [email].