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## The Collaborative Role of Parents and Teachers: Fostering a Growth Mindset in an Alternative Learning Environment

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Sarah Cortes

*Concordia University - Portland*

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Concordia University–Portland

College of Education

Doctorate of Education Program

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The Collaborative Role of Parents and Teachers: Fostering a Growth Mindset in an Alternative  
Learning Environment

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Dissertation submitted to the Faculty of the College of Education

in partial fulfillment of the requirements for the degree of

Doctor of Education in

Instructional Leadership

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## **Abstract**

The objective of this study was to explore how parents and teachers collaborate with one another during monthly consultations in regard to fostering a growth mindset among students within their respective learning environments. The study was conducted at an alternative learning environment in the Pacific Northwest of the United States over a 12-week period, using a sample consisting of five parents and five teachers teaching in the elementary grades—from kindergarten up to the sixth grade. Dweck's (2006) mindset theory was the conceptual framework for this study and served as the foundation for data analysis. Data were collected via preprofessional development interviews, 90-minute professional development, final thoughts sheet, observations, and postprofessional development interviews. The following eight major themes emerged after the data had been collected and coded: persistence, mindset transferability, growth mindset language, elementary levels and foundation, collaboration and growth mindset, social-emotional aspects, embracing challenges and self-talk, and encouragement. Participants noticed a shift in students' motivation and confidence after fostering a growth mindset within their respective learning environments. The results indicated that teachers and parents should consider using a growth mindset approach within their respective learning environments in elementary education to help students develop a growth mindset to assist with their social-emotional development. In addition, the results indicated that teachers and parents should consider collaborating with one another when it comes to implementation, as this provides them with a common platform for teaching growth mindset in their respective learning environments.

*Keywords:* alternative learning environment, growth mindset, fixed mindset, collaboration, mindset theory

## **Dedication**

This dissertation is dedicated to my amazing daughter, as a reminder that you can achieve anything if you put your mind to it.

## **Acknowledgments**

First, I would like to thank my amazing husband, Marcos, who was my rock throughout this whole process. You were my listening ear, my shoulder to cry on, the best distraction, and my biggest believer. Marcos, you knew before I did I could do this! It would not have been possible without your support, encouragement, and love. I would also like to thank my daughter Cienna—although you are too young to know this, you were my light at the end of the tunnel. Without both of you, I would have abandoned this dream of getting my doctorate long ago. I would not be where I am without both of you.

I would also like to express my sincere appreciation to Dr. Barbara Weschke, who supported me throughout this process. Thank you for being a guiding voice and for your constant feedback, reminders, and guidance, which kept me going throughout this endeavor. You have challenged me to be better—not only as a student, but also as an educator. You have been an amazing mentor, and I genuinely appreciate all the support you have given me over the past year. I would also like to thank my committee members, Dr. Maggie Broderick and Dr. Donna Brackin. Your positive feedback, encouragement, and support were much appreciated throughout.

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## **Chapter 1: Introduction**

### **Introduction to the Problem**

In the course of any given day, a child comes into contact with various problems and challenges that he or she has to solve. When approaching these problems or challenges, the child has one of two mindsets: a fixed mindset or a growth mindset. A mindset is the belief that individuals are cognizant of their abilities and how those abilities can impact success within their lives; and in the field of education this relates specifically to a student's abilities within a learning environment (Dweck, 2006). A growth mindset is a conviction that success can be developed and learned through one's failures. Dweck (2006) explains that a student exhibits a growth mindset when students persevere when faced with a challenge and believe that they can learn from or change as a result of their experiences. In a fixed mindset, individuals believe they are born with specific talents that cannot be enhanced or altered (Dweck, 2006), and since they believe that they cannot change, when faced with a challenging task, they do not even try.

Children begin to evaluate and hesitate when faced with challenges at an early age (Dweck, 2006). Indeed, they are taught or trained into these mindsets at a young age by authoritative figures in their lives, such as parents and teachers. However, Dweck (2006) regards mindsets as subjective; if the learning environment is set up in a way that allows children to be encouraged to use a growth mindset, their mindsets can change. While such encouragement often takes place in the upper grades at middle or high school, frequently, it is neglected in the lower grades. When children are in the elementary setting, they need a parent or teacher to foster a growth mindset to enable them to succeed when faced with a difficult task. Moreover, it is up to the parent or teacher to create a learning environment that supports and employs a growth mindset (Treadwell, 2010).

Such mindsets can be either influenced or hindered by the learning environment established by an elementary school teacher or parent, thus introducing the notion of emotional contagion (Bethge, 2018). Emotional contagion occurs when individuals unconsciously imitate the demeanor of those around them, causing them to adopt one another's emotions unconsciously (Nass & Yen, 2012). Consequently, the emotions of teachers' or parents' emotions may also influence or hinder mindsets in a child's learning environment (Schleider et al., 2016). For this reason, an elementary teacher or parent needs to be cognizant of the need to create an environment in which a student's thinking is expanding and encouraging the development of a growth mindset.

One example of a learning environment is an alternative learning environment. An alternative learning environment is a school that meets the needs of students—behavioral, medical, academic, and social needs, among others—outside the traditional school environment (Alternative Learning Department, 2019). Each family and student has different reasons as to why an alternative environment is a better fit for that family and student, and these range from academic to social considerations. However, each decision uniquely pertains to the student and his or her particular needs. In this study, I examined an alternative learning environment in the Pacific Northwest, where the sharing of instruction occurs between parents and teachers. The parents are in charge of approximately 80% of the teaching at home, while the other 20% is undertaken by the teacher in the classroom. Within this particular alternative learning environment, teachers and parents have the opportunity to design the learning to help meet the individual needs of their students, which provides the former with the opportunity to design inquiry-based learning that focuses on a growth mindset.

An inquiry-based environment is one in which the teacher or the parent assumes the role of facilitator to guide and support the students' learning. In this type of setting, an individual views learning as an opportunity for students to guide their own learning, based on interests provided by the facilitator. When this happens, the students begin to learn within themselves, explore topics, ask questions, research answers, and reflect (O'Brien, 2015). In addition to the fact that the students guide their own learning, the teachers or parents make use of open-ended questions to encourage discourse and problem-solving (Kim, 2015). This kind of environment is known as student-centered learning, because the students take ownership of their learning. When students have the opportunity to take ownership of their learning, they are able to learn self-regulation and understand that mistakes play an integral part in learning. Once they come to the realization that mistakes are an integral part of learning, they can begin to understand and learn about the importance of a growth mindset.

To ensure continuity between the two learning environments, however, parents and teachers need to establish communication and a group culture. Rosen (2013) describes how communication assists in sharing information, making use of various opportunities, and creating value. In addition, when individuals participate in active discourse, they are able to solve problems through conversation. By participating in effective discourse, one is creating a group culture in which a person shares the same values and beliefs as his or her group. Members of the group have the same ideas when it comes to their practices and they share a similar purpose. A group culture allows for collaboration towards a common goal. The first step in creating more effective communication is establishing common ground. Schmuck, Bell, and Bell (2012) explained that one should desegregate in an environment such as a school, which means being able to come together and discuss the hopes, concerns, and expectations of the school. This is

especially true when it comes to fostering a growth mindset both at home and at school. When parents and teachers have the opportunity to collaborate and engage in active discourse, they are able to formulate a cohesive vision to foster a growth mindset. Hanson et al. (2016) stated that once teachers and parents have this established vision for a growth mindset, they can then begin to foster a growth mindset in students. This requires purposeful planning on the part of teachers and parents, but it also requires communication (Enriquez et al., 2017).

In the first chapter of this dissertation, I introduce various components of the study that provide an introduction and background to the subject matter. The chapter also presents the problem statement, the purpose of the study, an introduction to the research questions, and the conceptual framework that was applied. It outlines the relevance and the significance of the study, defines related terms, and discusses assumptions, delimitations, and limitations. Finally, I will conclude this chapter with a summary of the headings above.

### **Background, Context, History, and Conceptual Framework for the Problem**

The study used Dweck's (2006) mindset theory as a lens to explore how parents and teachers can foster instruction on a growth mindset within a given learning environment. Dweck (1988) was the first to introduce the notion of the impact of mindsets and how one's mindset can determine one's motivation, effort, and challenges. Dweck (2006) explained that these mindsets could determine whether someone has a performance goal or learning goal. Dweck (2006) explained that if a student has a performance goal, he or she may be more focused on avoiding challenging tasks that might be undertaken merely to look intelligent. Instead, a student with a learning goal is more interested in pursuing challenging tasks so that he or she can learn more. The notion of learning or performance goals evolved into the theory of mindsets (Dweck, 2006). In this model of fixed and growth mindsets, Dweck (2006) pointed out that intelligence is

malleable and can be changed if a child is in an environment that supports a growth mindset model.

A growing number of teachers and administrators are fostering and embracing a growth mindset as a means of encouraging student motivation within the school setting (Cant, 2017). Often, however, these growth mindset strategies are not applied to academic work and are not carried over to the home learning environment (Carlson, 2018). Developing the right mindset at an early age is crucial, because it allows children to learn about how putting in effort can help them achieve the desired outcome. In addition to putting in effort, the student gains an understanding that one's brain is malleable and is capable of growing, which in turn constitutes putting a growth mindset into practice.

Some of researchers (Bethge, 2018; Cant, 2017; Enriquez et al., 2017; Kim, 2015; O'Brien et al., 2015; Saia, 2016; Seaton, 2017; Seibel, 2016) have identified a strong connection between growth mindset in a learning environment and the teacher who implements it. However, there is inadequate research on how teachers and parents participate in alternative learning environments and how they can foster a growth mindset within such environments. While some research (Lancaster, 2017; Postiglione, 2012; Watson 2011) has been undertaken on the student-centered approaches adopted in these environments, it contains no reference to a growth mindset. The unique nature of alternative learning environments and the fact that both teachers and parents are involved in fostering a growth mindset in these environments have resulted in a gap in the literature. There is, therefore, a clear need for research into the alternative learning environment, focusing on the elementary levels of learning—both at home and at school.



## **Statement of the Problem**

Although researchers have studied growth mindset, there are only a few (Kim, 2015; O'Brien et al., 2015) who have focused on elementary grades (kindergarten through sixth grade). In addition, only one study (Carlson, 2018) focused on the collaboration between teachers and parents in fostering growth mindset strategies. However, there is a gap in the research with regard to how parents and teachers collaborate with one another in fostering growth mindset strategies in an alternative learning environment at the elementary level. The literature review in Chapter 2 examines studies dealing with cases that successfully implemented a growth mindset in various learning environments (Bethge, 2018; Cant, 2017; Enriquez et al., 2017; Kim, 2015; O'Brien et al., 2015; Saia, 2016; Seaton, 2017; Seibel, 2016), but which did not focus simultaneously on the home learning environment and the classroom learning environment. The problem this study examined is how both parents and teachers can collaborate when fostering a growth mindset in their respective teaching environments. Furthermore, coding the data would help to identify themes when it comes to fostering a growth mindset in elementary students' learning environments.

## **Purpose of Study**

The purpose of the case study was to obtain information from five teachers—kindergarten through sixth grade—and five parents, collaborating with one another in an alternative learning environment setting, to establish whether and how they foster growth mindset strategies within an inquiry-based environment. At present, the parents and teachers do collaborate on their teaching of academic subject areas within this particular setting; however, there has not been any intentional conversation concerning a growth mindset. My intention was

to obtain information on how the teachers and parents collaborate with one another during their monthly consultations with specific regard to fostering a growth mindset.

I decided to use a case study approach to answer the research questions, as this method would enable an in-depth examination of both parents and teachers and how they foster growth mindsets in the children with whom they work. The study included the collection of multiple forms of data, including preprofessional development interviews, 90-minute professional development with a final thoughts sheet, observations, and postprofessional development interviews various artifacts from the participants. There were other qualitative methods that I considered for this study; however, since a growth mindset within the two learning environments is unique to this alternative learning environment, a case study best met the needs of this study. The goal of the research was to identify themes and patterns concerning the parents' and teachers' experiences with fostering growth mindset strategies in their particular learning environments. Once I identified these themes and patterns, I could then determine whether there were any commonalities between the fostering of growth mindset strategies in the two different learning environments—i.e., the classroom for teachers and the home for parents.

## **Research Questions**

**Research question 1.** How do teachers of elementary students in an inquiry-based alternative learning environment foster and increase home-to-school collaboration with parents to foster growth mindset concepts in the children?

The study addressed how parents and teachers collaborate during their monthly meetings, also known as consultations. At these meetings, parents and teachers discuss how they foster a growth mindset in their respective learning environments. Porter (2008) explains that when the teacher and parent come together, they have complementary expertise, and sharing ideas may

help with the overlap between the two learning environments. As a result of this overlap, teachers and parents should have a constant line of communication open with a view to establishing a working relationship.

**Research question 2.** How do parents of elementary students in an inquiry-based alternative learning environment foster a growth mindset of effort and practice to their children while homeschooling?

When fostering growth mindset strategies in a given learning environment, the messages given by parents and teachers can affect how a child develops his or her particular mindset (Dweck, 2010). However, these messages about a growth mindset can be influenced either positively or negatively when implemented in the various learning environments. By intentionally fostering a growth mindset both at home and at school, parents and teachers can collaborate with one another and expand on the curriculum taught in school. Moreover, there is no research on how a growth mindset can be instilled in elementary students while homeschooling.

**Research question 3.** How do parents and teachers of elementary students collaborate with one another monthly in consultations in regard to fostering a growth mindset in their respective learning environments

When it comes to fostering growth mindset strategies, there is a need for research that focuses on both the home and school environments and how these two environments interact with one another. Carlson (2018) explains that there is a gap when it comes to collaboration between schools and home about a growth mindset, and that this gap can be easily bridged if parents are involved in instilling a growth mindset. The same study indicated that there could be an improvement in collaboration if the parents and teachers participated in workshops,

conferences, and assignments that relate to a growth mindset. By observing the monthly consultation referred to above, I hoped to identify how such collaboration can be effectively undertaken in order to overcome the challenges that present themselves when fostering a growth mindset.

### **Rationale, Relevance, and Significance of the Study**

**Rationale.** Although the literature (Bethge, 2018; Cant, 2017; Enriquez et al., 2017; Kim, 2015; O'Brien et al., 2015; Saia, 2016; Seaton, 2017; Seibel, 2016) has addressed the implementation of growth mindset in relation to various classroom settings, academic achievements, and other areas, there is scant research that focuses on the collaboration between parents and teachers with a view to fostering growth mindset strategies. Several studies (Bethge, 2018; Cant, 2017; Enriquez et al., 2017; Kim, 2015; O'Brien et al., 2015; Saia, 2016; Seaton, 2017; Seibel, 2016) have demonstrated the effectiveness and importance of growth mindset, but only a small number of studies focus on the elementary level (Cant, 2017, Enriquez, 2017, Kim, 2015; O'Brien et al., 2015, & Smith, 2017). Looking beyond the implementation of a growth mindset at the elementary level, there is only one study (Carlson, 2018) that focused on parent and teacher collaboration when it comes to a growth mindset. However, there has been no focus either on parents and teachers collaborating on growth mindset in monthly meetings or on the two separate learning environments, namely home and school.

At a young age, students need a teacher or parent who encourages a growth mindset, because a child's belief system about mindsets is essential for success in a learning environment. Children will accept what they have been previously taught by authoritative figures about their potential and abilities (Dweck, 2006). Moreover, a teachers' or a parents' mindset when approaching challenges can influence a student's mindset in a positive or negative way. When

this happens, a teacher or parent is transferring his or her mindset to his or her students (Bethge, 2018). Thus, the importance of knowing how to foster a growth mindset within different learning environments. By emphasizing how to foster a growth mindset within a given learning environment, students will learn how to face difficulties because a parent or teacher created an environment to support this type of mindset.

**Relevance.** The goal of the research was to identify themes and patterns relating to the fostering of a growth mindset, in the hope of assisting parents and teachers to establish a learning environment that has a foundation in a growth mindset. Once teachers or parents have a vision for their learning environment, they can then start to lay the foundation for fostering various growth mindset strategies. The study included the provision of professional development to help provide a background to growth mindset and strategies to support fostering within the two learning environments. My intention in providing such professional development was to ensure that the participants were better equipped to foster growth mindset. The aim of focusing on both the parent and teacher was to determine whether there were any commonalities in using a growth mindset at home and at school.

**Significance.** The case study may be significant for parents, educators, and administrators in that the results may provide information to assist in fostering a growth mindset at the elementary levels (kindergarten through sixth grade) and in demonstrating how both parents and teachers can play an integral part in this process. Mindsets play an integral part in a child's life, and children at the elementary level need to have the opportunity to learn about a growth mindset and understand that adopting a growth mindset will assist them when facing difficult tasks. By introducing growth mindset skills, parents and teachers are setting their children up for success. In addition, the research demonstrates how parents and teachers can

collaborate with one another to bridge the gap between school and home when it comes to fostering growth mindset strategies. Bridging the gap between these two learning environments will enable the child to experience and receive well-rounded instruction.

### **Definition of Terms**

*Growth Mindset:* Growth mindset is a belief that one's abilities have the fundamental foundation to change or improve with time if an individual put in the effort required to achieve this (Dweck, 2006).

*Fixed Mindset:* A fixed mindset is the belief that one's abilities are incapable of evolving no matter how much effort is put in (Dweck, 2006).

*Mindset Theory:* Mindset theory refers to the way individuals characterize their performance and how they may respond to or approach different facets of learning. Dweck (2006) explains that an educator can develop appropriate responses when it comes to approaching learning or responding to failure.

*Alternative Learning Environment:* According to the state of Washington, an alternative learning environment (ALE) is a public education setting in which a child receives instruction outside a regular classroom schedule. In these alternative environments, a child still follows all the public educational requirements and the Washington Administrative Code (WAC) chapter 392-121-182 (Alternative Learning Department, 2019).

*Consultations:* In this study, consultations refer to meetings between parents and teachers. During these meetings parents and teachers discuss academic subject areas (River HomeLink, n.d.).

*Learning Environments:* In this study, learning environments include the classrooms on the school campus, as well as the instruction that occurs at home (Carlson, 2018).

*Elementary Level:* In this study, elementary level refers to kindergarten through sixth-grade students (The Editors of Encyclopedia Britannica, 2016).

*Inquiry-Based Learning:* Also known as discovery-based learning, is an environment in which a student learns on the basis of materials provided by the facilitator and is an active learner. This is the situation in the classroom where it is the teacher's role to guide and support students in their learning. (Treadwell, 2010).

*Student-Centered:* In a student-centered environment, teachers assume the role of facilitator and help guide students in their learning. In such an environment, the students take charge of their learning, while the teacher act as a guide in the student's learning (Lancaster, 2017 & Postiglione, 2012).

*Least Restrictive Environment:* This refers to a learning environment in which a student can learn without the barriers that a traditional classroom would impose (Lancaster, 2017).

*Facilitator:* The facilitator refers to the parent or teacher fostering various growth mindset strategies (Beghetto & Kaufman, 2009).

*Collaboration:* Collaboration refers to the opportunities parents and teachers have to interact with one another for the purpose of fostering growth mindset strategies (River HomeLink, n.d.).

*Professional Learning Community (PLC):* Professional learning communities consist of educators who work collaboratively with a view to planning and improving learning opportunities for students (Ross, 2018).

*Traditional Classroom:* This refers to a classroom that has one primary teacher within a traditional school (Postiglione, 2012).

## **Assumptions, Delimitations, and Limitations**

**Assumptions.** In the study, I assumed that all participants would be truthful during the two interviews and in describing their experiences. I also assumed that the participants would be candid and honest when being observed during their monthly consultations. This assumption is imperative to this study because without openness and honesty I cannot get an accurate understanding of how the participants fostered growth mindset. Moreover, I assumed that participants would already have established a working relationship, due to the fact that they had been meeting on a regular monthly basis. Without a working relationship, the collaboration about growth mindset is impossible because this study requires both participants to foster growth mindset and collaborate in their monthly consultations actively. Lastly, after participating in the professional development, I assumed that each participant had the same learning outcomes. By having the same learning outcomes from the professional development, the participants all have the same knowledge to foster growth mindset in their respective learning environments.

**Delimitations.** One delimitation within the study was the choice of completing the study in an alternative learning environment. An alternative learning environment was an ideal school to focus on because in this particular environment both parents and teachers assume an educator role. Moreover, the parents and teachers already collaborate in regular monthly consultations, where they work with one another to discuss the learning taking place in the classroom and during homeschool hours. The alternative learning environment is classified as a K–12 school, but for the purposes of this study only kindergarten through sixth-grade parents and teachers were included. I excluded middle and high school parents and teachers since the focus of the research was exclusively on the elementary grade level. In addition, the delimitation focused on parents and teachers fostering a growth mindset, without examining the students' perspective.



**Limitations.** While the findings of this study are not generalizable, the hope is that the information gleaned will contribute to and enhance not only growth mindset at the elementary level of education, but also how parents and teachers can collaborate to foster a growth mindset. Nevertheless, the study did have certain limitations that are outside my control but could represent weaknesses of the study. The use of a small sample of five teachers and five parents posed a limitation, because it relied on the availability of these participants. Moreover, in the course of the study, the parents and teachers committed to instruction in their different learning environments. Another limitation was that students at the elementary level are still developing their mindsets, and these mindsets could be influenced by many different factors, such as classmates, parents, and teachers. A final potential limitation of the study was an ethical consideration, namely the existence of a pre-established relationship with some of the participants. I have a daily working relationship with some of the teachers, but do not hold a position of authority. Lastly, another limitation within the study was that this study took place at the end of the school. This is considered a limitation because at this time of the year, parents, teachers, and students already have established routines and adding something new into their routine.

## **Chapter 1 Summary**

The focus of Chapter 1 was to introduce critical terms and define them to provide clarity in relation to the dissertation. In this chapter I have explained the background and context, and introduced the conceptual framework used for the study. Moreover, I have explained the purpose of the study and the deficiencies within the research, including, the assumptions, limitations, and delimitations. Furthermore, the rationale, relevance, and significance of the study have been presented, in addition to how I have added to the current field of educational research.

As the researcher, I conducted a case study to examine the implementation of growth mindset strategies and to identify whether and how two different learning environments can collaborate with one another for such implementation. Chapter 2 presents a comprehensive literature review dealing with studies that relate to growth mindset and the subject of this study. Chapter 3 outlines the methodology used in the study. Chapter 4 presents the results of the study and outlines the data analysis and findings. Finally, the concluding Chapter 5 presents the conclusions and their implications and discusses the findings of the study.

## **Chapter 2: Literature Review**

### **Introduction**

This literature review presents research that assesses various aspects of growth mindset in relation to students within various learning settings, with a specific focus on an elementary alternative learning environment. An alternative learning environment is a school that meets the needs of students outside the traditional school environment; these include behavioral, medical, academic, and social needs, *inter alia* (Watson, 2011). The study used Dweck's (2006) theory of intelligence and explored how teachers and parents can provide instruction and facilitate a growth mindset within an elementary learning environment. The literature review includes a detailed description of the conceptual framework based on Dweck's (2006) mindset theory. I divided the review into the following sections: a background to growth mindset and alternative learning environments, Dweck's (2006) mindset theory and growth mindset, a review of the literature based on related searches, and a summary of the research. The following associated keywords were explored to assist with further understanding for the purposes of this research: growth mindset, fixed mindset, inquiry-based learning, discovery-based learning, and alternative learning environments.

It is up to the teacher in the classroom or the parent at home to create an environment that is engaging for the student. Active engagement creates an environment that emphasizes learning in various forms and methods to help students grasp concepts, while also employing the use of a growth mindset (Treadwell, 2010). When students learn in an environment in which a growth mindset is in place, they can practice persistence, arrive at answers to questions they may have when it comes to learning, and solve problems when the need arises. This approach allows students the opportunity to think about the concepts they learn, which harnesses the discovery of

alternative solutions, rather than stopping when a conflict is present (O'Brien, Fielding-Wells, Makar, & Hillman, 2015). The implementation of a growth mindset in an elementary setting (kindergarten through sixth grade) may prove valuable in improving an elementary student's education and can play an integral part in the classroom and a child's education in general.

### **Conceptual Framework**

In order to better understand the notion of growth mindset and the importance of encouraging a growth mindset at an early age while in school, Dweck's (2006) theory of mindset is used as the framework of this study. Dweck (2006) presented the idea of a mindset and how each person has a sense of his or her own intelligence (David, 2015). Moreover, Dweck researched the concept of mindsets and how individual mindsets continuously influence the way individuals interpret the world around them (Dweck, 2010). Dweck (2006) categorized this idea into two subsections: a fixed mindset and a growth mindset. A fixed mindset is a belief or perception that abilities attained through education are finite and incapable of evolving. By contrast, a growth mindset is the belief that one's abilities have the fundamental ability to change and/or improve with time (Dweck, 2006). According to Dweck (2010), one has the capacity or power to change from a fixed mindset to a growth mindset. In doing so, the meaning of both effort and difficulty transform, because one is not focusing on the product of one's learning, but rather on the process of learning in which one engages (Dweck, 2014). On the basis of this framework, one can see how the power of fostering a growth mindset in an elementary classroom may help students change from a fixed mindset to a growth mindset.

Dweck (2006) explains that at an early age, children are trained into a certain mindset, yet by training children into these mindsets, one is teaching them that they are unable to change and grow, thus essentially setting them up with a fixed mindset. Mindsets are subjective and can

change when an environment is best suited to allow for growth through self-exploration; however, many students are unaware that a mindset can evolve when the conditions for doing so are present. Dweck (2006) states that children begin to evaluate and hesitate in the face of challenges at as early an age as four. Moreover, Dweck points out that when children reach the age of four, they start to present signs of having both fixed and growth mindset traits.

Subjective mindsets begin to emerge in the early years of a child's life and are often influenced by authoritative figures such as parents and teachers. Dweck (2006) explains that a child's developing mind is highly impressionable to cognitive and behavioral messages (pp. 176–177). Therefore, in any given elementary classroom, teachers can see the differences in the mindsets of each of their students. One set of students may come into the classroom with an understanding of their abilities, and the knowledge that capabilities can be developed or enhanced over time. However, other students, with more of a fixed mindset, may avoid stressful situations when faced with challenges and adversity because they believe their intelligence is finite (Dweck, 2014). Lastly, a teacher may observe that a student has a different mindset in different areas; for example, a student may have a mindset that intelligence can be developed in the field of reading, while at the same time possessing a mindset that he or she cannot improve in math (Dweck, 2006). These various types of students have developed mindsets on the basis of their past experiences, and in so doing have created their mindset or view on learning (Dweck, 2006).

Young students require a teacher or parent who both teaches and encourages a growth mindset. Emphasizing a growth mindset allows individuals to thrive and advance in the face of difficulty, but it also allows them to value what they are learning. Using Dweck's (2006) theory of mindsets in the study provided a baseline for the differences in mindset one may observe in an

individual student. In addition, it demonstrates that these mindsets are not static, but can be changed and taught to students in an elementary learning environment.

## **Review of Research Literature and Methodological Literature**

**Mindsets.** Seaton (2018) researched the impact of teachers' mindset beliefs and how training teachers on these mindsets can help them identify such mindsets in their classrooms. On the basis of their ability to identify these mindsets, teachers can effectively change how they foster a growth mindset in students. Seaton (2018) describes the importance of empowering teachers to foster Dweck's (2006) theory of growth mindset in the classroom. Using a mixed-methods approach and a thematic analysis to identify key themes, Seaton (2018) studied five middle schools and one high school in a Scottish authority to demonstrate how a teacher's mindset lays the foundation for fostering growth mindset and how mindsets of teachers can be altered through teacher-training programs. These teacher-training programs focused on implicit theories or self-theories in relation to a teacher's mindset. An implicit theory is the knowledge of one's abilities and intelligence, and one's beliefs about whether one's abilities and intelligence can change (Dweck, 2012).

A teacher's or parent's mindset can play an integral part in helping students develop their own mindset, due to the idea of transferability and the influence exerted by the interaction of leading figures. Transferability of a mindset, as described by Bethge (2018), occurs when a teacher's particular mindset (whether fixed or growth) influences his or her students. Bethge's (2018) study focused on how the growth mindset of 14 teachers in the Midwestern United States influenced their individual beliefs about intelligence. In the study I used a data triangulation strategy with multiple sources of data, including surveys and questionnaires, to help corroborate the findings. It was found that teachers viewed intelligence as a personal characteristic that has

the potential to grow when nourished. Moreover, it was identified that with the shift to the Common Core State Standards, students need an additional push in their learning, as they require higher-order thinking that assists in problem-solving and gaining a deeper understanding of the concepts they are learning. Bethge (2018) found that intelligence is more expansive than merely IQ and test scores; rather, effort and hard work can demonstrate intelligence more widely. Bethge (2018) introduced the idea of “mindset misunderstanding,” if a teacher does not have an accurate understanding of what it means to have a growth mindset, he or she may not understand how the perspective of a mindset translates within the classroom and instructional process (p. 53). Such a teacher may therefore struggle to leverage the power of growth mindset within his or her classroom.

Similarly, Kim (2015) demonstrated that the use of high-level questions and talk time within a classroom could enhance students’ learning and help them gain an understanding of the concepts learned. Kim’s (2015) quantitative descriptive analysis study concentrated on a random field trial of 6,000 students, ranging from third to fifth grade, and 320 teachers. The researcher compared two different groups—a control group that consisted of traditional classes, and a treatment group that included inquiry-based classes. The findings of this study demonstrated that when a teacher encouraged student talk time, the students had the opportunity to express their opinions, since they had to provide reasoning about their argumentation and learning. Expanding on the idea of student talk time, Kim (2015) described that when a teacher uses open-ended questions, the student has the opportunity not only to provide explanations and appraise his or her reasoning, but also to evaluate other students’ thinking within the classroom. Conversely, in the traditional classroom scenario, most teachers ask questions that require only explicit or factual information, rather than requiring students to use their reasoning, which could potentially

lead to meaningful learning. In an inquiry-based classroom, however, discourse is highly encouraged, demonstrating how teachers are a foundation for setting the path for students to explore the concepts they are learning. Therefore, this highlights that teachers create the foundation of a growth mindset within the classroom and foster the idea of process praise, which allows students to focus on their effort, strategy, and the learning progress they have made thus far (Dweck, 2014).

Correspondingly, a school's organizational structure can also influence or hinder teachers' beliefs when it comes to fostering a growth mindset. Hanson, Bangert, and Ruff (2016), using an exploratory quantitative research design, found empirical evidence of a correlation between a school growth mindset and overall positive school improvement. Their study focused on four middle and high schools in a Northwestern state during October and November 2014. The researchers gathered data through surveys—delivered on-site during staff meetings—focusing on job-related variables such as performance, satisfaction, behavior, and organizational commitment. The research demonstrated that a growth mindset culture is imperative when fostering such a mindset in a classroom setting. By supporting and applying a growth mindset, one is creating both culturally responsive schools and learning, because one is focusing on the collective ability of the group (Hanson et al., 2016). The focus on the collective ability of the group results in the implementation of a school growth mindset. Hanson et al., (2016) describe a school growth mindset as a culture where there is a common vision at the school, where they share knowledge through collaborative planning, shared leadership, support and resources, and where communication is encouraged.

When a team of teachers has an established growth mindset vision, they can collaborate with regard to planning and enjoy open communication on the basis of their support for one



another (Hanson et al., 2016). Once teachers establish this, they can then begin to foster the growth mindsets of their students. Teachers need to take various steps in fostering a growth mindset in students, including providing opportunities for students to think and learn differently through problem-solving, conversations, and discussions (Enriquez, Clark, & Calce, 2017). In their 2017 study, for example, Enriquez et al. explain that students can be provided with a dynamic learning framework if teachers undertake purposeful planning with regard to the language and instructional materials (e.g., children's books) they use, and if they frame intentional conversations among the students. A dynamic-learning framework, similar to a growth mindset, provides students with skills to begin questioning the environment around them, and to come to the realization that individuals can change and grow (Enriquez et al., 2017). By focusing on a kindergarten classroom and one teacher's three read-aloud sessions during the course of a year in Cambridge, Massachusetts, the researchers gained insights into how this learning environment helps create a purposeful learning atmosphere. The teacher in the study used interactive read-aloud sessions to foster the dynamic-learning framework, and in doing so children had the opportunity to "recognize the power they have to change the status quo, choose to take on challenges, grow their brains, and question fixed ideas about" what they are learning (Enriquez et al., 2017, p. 718). In the course of the year, the researchers discovered that by using a selection of children's literature, a teacher could support the development of a dynamic learning framework in a child.

A dynamic learning framework (Johnston, 2012)—an extension of Dweck's (2006) growth mindset theory—describes how this environment improves not only students' academic achievements but also their mindset when it comes to problem-solving. This style of thinking allows students to ask questions, understand different perspectives, and gain an understanding of

how people can change and grow (Enriquez et al., 2017). By using this framework for learning, students can be pushed towards a higher level of thinking where they are equipped to gain a deeper understanding of what they are learning and to implement problem-solving skills (Bethge, 2018). However, this requires teaching students what a growth mindset is and how to embrace it. To acquire a growth mindset, individuals need not only to challenge their minds, but also to understand how to deal with failure when it comes to learning.

When teachers demonstrate to students that they can learn from their mistakes, they can challenge their minds through the growth mindset process (Smith, 2017). Smith (2017) studied four first-grade classrooms in rural New Hampshire in a mixed-methods, quasi-experimental study to demonstrate that there is a connection between the brain, body breaks, and the development of a growth mindset. Body breaks afford students the time to take a physical break from academic work. Smith (2017) found that when there is an emphasis on non-cognitive skills—e.g. grit and mindset—students were more successful in their academic endeavors, because they had learned to deal with both frustration and failure in an academic setting. By learning these skills, students can learn from their mistakes and foster the use of a growth mindset when tackling questions or problem-solving. Therefore, this illustrates the importance of challenging a student’s mind when he or she is learning, because “the more that you challenge your mind to learn, the more your brain cells grow” (Dweck, 2006, p. 219).

The teacher plays a significant role in fostering students’ growth mindset by encouraging students to take ownership of their learning by understanding what it means to have a growth mindset. Furthermore, in order to take ownership of their education, students need self-motivation. Cant (2017) studied 22 kindergartners, between ages 5 and 7, in a full-day program during the second half of a school year in a mixed-methods study, using a triangulation method.

The study made use of surveys, observations, and assessments. Once the data had been coded and triangulated, Cant (2017) identified four main themes: resiliency/vulnerability, self-regulation, performance, and interest. The goal of the research was to establish how a student's perception of himself or herself can affect motivation within a learning environment. Dweck (2012) (as cited in Cant, 2017) has pointed out that teaching students a growth mindset assists in boosting their motivation when it comes to academic endeavors. When a teacher educates a student about a growth mindset, the student will have a better opportunity to follow through on his or her learning goals, and hence receive a more significant boost to his or her motivation when faced with a challenge. However, to encourage this type of self-motivation from students, a teacher needs to practice praise.

Cant (2017) explains how a teacher needs to praise a student's learning process; by honoring the learning process, the teacher is fostering a growth mindset within his or her classroom. In addition to Cant (2017), Saia (2016) refers to the importance of empowering students when it comes to taking ownership of their learning. Saia (2016) studied six first-grade students in a qualitative research study and their ability to adopt a growth mindset when confronting a new challenge concerning the subject area of literacy. The study took place over five weeks within the classroom and used anecdotal notes and observations, and a mindset assessment profile to collect data. The goal of the study was to identify whether there was a change in a student's reading ability after he or she had learned a growth mindset. Saia (2016) revealed that students' relations with their peers affect how they individually assess their worth. When this happens, students rely on other students within the classroom to determine what their own success level is when it comes to learning. Therefore, this illustrates not only the importance

of teachers empowering their students to take ownership of learning, but also how a growth mindset can promote positive life-long learning habits.

Seibel (2016) and Cant (2017) arrived at similar findings when it came to teachers emphasizing praise of students' learning process. Seibel (2016) found that instructors who provided process-based feedback assisted students with different mindsets to exhibit growth in an art classroom when it came to the creative process. The researcher used a mixed-methods design, collecting data through observations, student surveys, and daily art warm-ups in which students practiced various art skills or concepts. The research was conducted in the state of Iowa over a 5-week period during August and September 2016 in a second-grade and a sixth-grade art class. The study's goal was to identify the association between students' mindsets and their divergent thinking skills. Guilford (1986) explained different thinking skills (as cited in Seibel, 2016) as the process of thought that encompasses various outcomes for a variety of situations a student may encounter, including problems and questions. Seibel (2016) went on to explore what environmental or instructional factors were necessary for nurturing a creative growth mindset. The results indicated that the majority of students studied identified a creative growth mindset with a concentration on their artistic ability. Seibel (2016) described that when students have the opportunity to use a growth mindset in relation to a creative process, they gain a belief that creativity can improve with effort.

**Parents and growth mindset.** Together with teachers, a parent is a child's first educator and plays a significant role in fostering a student's growth mindset when it comes to educating at home. Dweck (2010) mentions that students' mindsets are not limited to the curriculum they are exposed to at school; rather, it is the combination of the curriculum at school and the message conveyed at home that has an impact on a child's mindset. More importantly, when it comes to a

fixed mindset in a child, parental messages can have an impact on the development of such a mindset. Thus, a fixed mindset can develop within a child if a parent conveys a message that intellect is innate, rather than based on hard work and effort. Elish-Piper (2014) points out that when teachers and parents collaborate, they can help develop a growth mindset in students who are struggling in the subject area of reading. She explains that teachers should be sharing information about growth mindset with the parents at their school; and that to emphasize a growth mindset at home, parents should learn how to model, foster, and reinforce a growth mindset. Once parents learn how to emphasize growth mindset at home, they can then share personal experiences about learning and learn to discuss the effort that is required to get better at something—for example, the use of a growth mindset.

More importantly, Carlson (2018) discusses collaboration when it comes to a growth mindset and how it should be a combined effort between parents and classroom educators. Carlson (2018) states that home-school collaboration has developed into an essential area of study because of the positive impact the collaboration has on academic outcomes for children. In a mixed-methods, exploratory case study design, the study examined talented and gifted students in a suburban school district within a K–8 school, focusing on fifth and sixth-grade students. The elementary teacher participants in the study were selected by purposive sampling, with a focus group of three teachers. In addition, the researcher used convenience sampling methods to select the parent participants, who included eight parents of fifth-and sixth-grade students enrolled in the school’s gifted program. The study set out to explore parental involvement with students in Grade 5 through Grade 6 as it relates to growth mindset instruction received by the children at school and how it was reinforced at home.

In addition, Carlson (2018) explored how teachers within the same school can increase collaboration with parents using growth mindset concepts. To obtain this information, a survey was used to assess parents' knowledge, exposure, and involvement. Semi-structured interviews were also used to gather perceptions on how to increase school collaboration with home. Lastly, a constant comparison analysis was used to analyze data on the basis of descriptive statistics with a view to obtaining a theory grounded in data. Carlson (2018) found with the current growth mindset practices in place, and with the participation of parents, there was a high level of knowledge and exposure when it came to growth mindset concepts. After analyzing the results of the parental survey, it was found that parents had a basic knowledge of growth mindset concepts, and three significant themes were identified, namely that growth mindset is a belief that relates to a child's learning and improvement, that innate abilities are contradictory to a growth mindset, and that encouraging learning and improvement promotes the development of a growth mindset.

Similarly, Schleider et al., (2016) examined how parents' beliefs about intelligence or mindsets are relevant when it comes to their children. These researchers studied 131 parents of children aged between five and eight in a Midwestern city in the United States, using the Intelligence Mindset Scale, the Revised Children's Anxiety and Depression Scale-Parent Report, the Penn State Worry Questionnaire, and Mood and Anxiety Symptom Questionnaire-Anhedonic Depression. Schleider et al. (2016) demonstrated how a parent's mindset could negatively affect the child's mindset; thus, indicating the importance of opportunities for both home and school collaboration where a growth mindset between the two learning environments can be emphasized, as explained by Carlson (2018).

**Inquiry-Based learning.** Bruner (1961) introduced the discovery-learning model, which has the following five principles: problem-solving, learner management, integrating and

connecting, information analysis and interpretation, and failure and feedback. Bruner (1961) describes discovery learning as the process of obtaining or gathering knowledge through the use of one's mind to obtain information for oneself (as cited in Weibell, 2011). In this type of learning, the student is taking on a role in his or her learning by actively engaging, while the teacher assumes a facilitator role. The teacher facilitates the natural development of a learner, which allows learning to become internal, thus generating both creativity and new understanding, leading towards a growth mindset (Beghetto & Kaufman, 2009). By discovering things for themselves, without directions from the teacher, students can practice growth mindset strategies and the process in which they are engaging.

When an environment is not focused solely on the academic aspects of learning (i.e., common core standards), students can receive an education in a rewarding environment that focuses on student-centered education. To create this type of situation, the teacher of an elementary classroom needs to implement a constructivist approach to learning (Naude, Bergh, & Kruger, 2014). In this environment, students can generate a learning identity through worthwhile learning endeavors, rendered through the process of inquiry-based learning.

Discovery-based learning, also referred to as project-based learning or inquiry-based learning, occurs when the student does not have an implicit target, but rather when the objective is to learn through the use of materials provided by the facilitator (Alfieri, 2011). The primary role of the facilitator in this situation, classified as the teacher, is to monitor the students while they are learning. In this monitoring, teachers are redirecting and offering support to their students, while students are trying to find answers within themselves and through the information provided (O'Brien et al., 2015).

O'Brien et al. (2015), using a qualitative case-study approach, aimed to demonstrate how an inquiry-based classroom can foster a growth mindset among students. The researchers were motivated by concerns expressed by the Australian Academy of Science that students lacked the fundamental problem-solving skills needed in today's world. The researchers used classroom video datum in a year-five class in a suburban middle-class school in Queensland Australia and found there was a correlation between an inquiry-based classroom and the fostering of a growth mindset. O'Brien et al. (2015) explained that when students possessed the strategies for finding solutions, alongside the teacher monitoring the inquiry, students had a variety of approaches they could use when problem-solving or learning about a concept.

Correspondingly, Alfieri et al. (2011) found that an enhanced discovery-based learning environment in all age groups resulted in better learning outcomes. He emphasized that in this environment, discovery-based instruction was superior to traditional instruction because it allowed learners to acquire information on their own. Using the quantitative meta-analytic technique, the researchers examined the findings of 360 comparisons from 56 studies and compared enhanced discovery learning to other various instructional methods. By using random comparisons, the researchers arrived at a well-rounded data collection and concluded that in this environment, teachers needed to provide the learner with activities or tasks that require students to explain their ideas and findings. Inquiry-based learning allows students to be active learners in their environment with the teacher or facilitator asking questions to assist with problem-solving (Treadwell, 2010). Treadwell (2010) concentrated on the subject of writing, with 46 fifth-grade students in the state of Georgia.

In this particular school, students consistently received low writing scores on state assessments. Treadwell (2010) believed that this was due to teachers using direct instruction



rather than a hands-on approach. In an 8-week long triangulation mixed-methods study, the various data-collection instruments were used to ascertain whether discovery learning would positively impact student achievement. These data-collection instruments included student focus group interviews, teacher journaling for qualitative measurements, and pre- and post-tests for quantitative measurements. The researchers used these data-collection techniques and implemented discovery-based learning activities during writer's workshops, concluding that the use of a discovery-based learning approach had a positive impact on student achievement.

In a hands-on approach, the students can participate in discovery activities to help construct their knowledge. This gives them the opportunity to develop a growth mindset rather than a fixed mindset. This type of environment allows the teacher to help guide the student in his or her learning and foster a growth mindset within a classroom where students can create a passion for learning (O'Brien et al., 2015). While discovery-based learning is frequently used in the upper levels of education, it is often neglected in the elementary levels (Alfieri, 2010). This style of learning allows for hands-on learning through a constructivist approach to teaching. Consequently, students can interact with their environment through questioning, exploring, and scaffolding through prior knowledge to gain an understanding of their learning (Treadwell, 2010); thus, identifying the importance of discovery-based or inquiry-based learning, since these techniques can improve a student's focus and motivation.

These types of techniques need to be used to help foster a growth mindset because they provide learners with the opportunity to acquire a sense of purpose. This sense of purpose not only allows students to use the skills they have but to develop and find new innate traits (Robinson, 2011). Neuroscience has discovered that the brain is capable of change over time (Robinson, 2017). Since our minds can change, develop, and adapt as we grow, this allows us to

develop traits that may not have fully developed, for example, a growth mindset (Hallowell, 2011).

**Alternative learning environments and student-centered learning.** Alternative learning environments or classrooms create the least restrictive environment for students by establishing a place where a student can learn without the barriers that traditional classes may impose. In his study, Lancaster (2017) explained that an alternative learning classroom allows for the implementation of student-centered learning activities. He studied 25 students in rural Arkansas and compared an alternative learning environment to a traditional environment to observe the differences in the approaches to learning to gain an understanding of themes or patterns. In a mixed-methods design, data were collected from September to April through student surveys, consultation observations, semi-structured interviews, student focus groups, and journal entries to compare the learning in a student-centered classroom with that in teacher-centered classroom. Cooperative learning, a particular style of student-centered learning, was found to exist in the alternative environment. The research supports the notion that with this style of learning, students experienced an increase in self-esteem when it came to academic achievement. Students worked with one another to help achieve a common goal, unlike in a traditional teacher-centered classroom, where students competed with one another rather than worked together.

Similarly, the 2012 study by Postiglione examined how student-centered instruction allowed for the alternative learning environment to reach at-risk students. In this qualitative case study, the researcher interviewed and observed 10 randomly selected, at-risk adolescents and two alternative education teachers in New York State to determine the differences between teacher-centered and student-centered approaches. The objective was to demonstrate how a direct

instruction approach is not suitable for at-risk students, and that student-centered strategies are more appropriate to reach these students. The researcher found that direct instruction or teacher-centered instruction was not appropriate when teaching at-risk students; and that the implementation of a student-centered approach with an alternative learning setting enabled students to gain a sense a purpose, as learners, and utilize their skills to gain an understanding of the learning content.

In both instances (Lancaster, 2017; Postiglione, 2012), the researchers demonstrated the importance of a student-centered approach within an alternative learning environment as it relates to teaching students. By having this alternative environment, students and teachers can reconnect to help foster a positive learning setting. Slaughter (2009) (as cited in Postiglione, 2012) explains that within an alternative education, students have “effective, interactive instruction that has been discovered to include three key components: how learners are connected to the content of the course, the instructor, and each other” (p. 18). By providing this alternative environment, students can learn without being restricted by the barriers a traditional classroom may pose and can take control of their learning.

Watson (2011) expands on the idea of a student-centered approach within an alternative learning environment by emphasizing learner-centered instruction. This style of instruction allows the teacher to personalize the learning, while differentiating between the kinds of instruction appropriate for each learner. The researcher used an ethnographic methodology to look at marginalized alternative high school in a Midwestern city. The study took place during the spring and fall semesters in 2008 and focused on staff members, principals, instructional aides, a counselor, and students. Watson (2011) gathered data through observations, field notes, focus group interviews, and individual interviews. The study found that both curricula and

instruction were flexible within an alternative environment, because they focused on student input. By adopting a flexible approach, the school established a culture that understands the importance of goals outside traditional academic achievement. Thus, the school culture placed a strong emphasis on relationships between students and teachers. Watson's (2011) study demonstrated how alternative environments provide both teachers and students with the opportunity for learner-centered instruction or student-centered learning, which allows individual learners the opportunity to self-regulate and take control of their learning.

### **Review of Methodological Issues**

The purpose of this dissertation was to address complex questions regarding a growth mindset and how teachers and parents of elementary students in an inquiry-based learning environment can take ownership of their learning in response to receiving instruction in a growth mindset. To study an inquiry-based classroom in relation to a growth mindset required a qualitative research approach in order to obtain information and draw conclusions on a growth mindset or instruction in an alternative learning environment. Most educational research on growth mindset or student-centered learning used mixed methods of analysis (Lancaster, 2017 & Seaton, 2018 & Smith, 2017, & Treadwell, 2010) to explore real-world situations and examples. These case studies have provided insights into what growth mindset is, as against a fixed mindset, but also into how teachers incorporate mindsets in a classroom. However, there are certain limitations that often arise with case studies. The main limitation is that case studies focus on a single group, rather than on a variety of sources (McLeod, 2008). In these studies (Lancaster, 2017; Seaton, 2018; Smith, 2017; Treadwell, 2010), researchers have used stories from classrooms, teachers, and schools to provide insights into the benefits of fostering a growth mindset in a classroom.

Creswell (2013) explains the importance of using both qualitative and quantitative methodologies in a given study, also known as the mixed-methods approach, because each type of research has its own strengths. Quantitative research contributes to an overarching view of the study. It provides the opportunity for a researcher to examine the statistical aspect of the research and test hypotheses. By contrast, qualitative research provides a more in-depth picture of the research, since it is regarded as investigative research. In the case of qualitative research, the researcher tries to gain a better understanding of the problem at hand, thus being able to gain an understanding of underlying reasons, opinions, and motivations (Wyse, 2011). Still, each type of research has its own limitations and strengths.

**Quantitative methodology.** Quantitative research has been conducted in relation to growth mindset—for example, Kim (2015) and Hanson et al. (2015)—yet their focus was on older students and how teachers or schools implement a high level of thinking and application to a growth mindset. Hanson, Bangert, and Ruff (2016) examined a growth mindset culture in four middle and high schools and how a school’s organizational structure influences both teachers and students. By fostering a school growth mindset theory, a student’s school and the stakeholders within that school have the opportunity to become culturally responsive in both their teaching and organizational learning. In this quantitative study, the researchers dealt with three subfactors: collaborative planning, shared leadership, and open communication and support. This style of research enabled them to use multiple points to collect data, but with the limitation of the subject pool and the number of participants.

Correspondingly, Kim (2015) researched a growth mindset but focused on the teacher’s role and how questioning played an integral part in enhancing student learning. By using a quantitative research method, the researcher was able to apply descriptive analysis with a random

field and sufficient participants to conduct the research. The study identified that in order to enhance meaningful student learning, the teacher needs to use open-ended questions. Third and fifth-grade classes were compared—both traditional and inquiry-based classes—in order to demonstrate the differences in the types of questions the teachers were asking.

Both sets of researchers used a quantitative method, but focused on the growth mindset level of the school or teacher. Moreover, these studies examined four middle schools and high schools to gain an insight into how the schools' organization affected student learning. While Hanson et al. (2016) discussed a school's organizational structure, one can still understand that the core of their research was focused on the planning a teacher must undertake in order to foster a growth mindset within a classroom. Likewise, Kim (2015) argued the importance of questions and how open-ended questions provide a meaningful learning experience, but this still requires planning on the teacher's part.

**Qualitative methodology.** Qualitative research aims to study human behavior as it occurs naturally. It employs a subjective approach with an emphasis on the participants' views as well as the bias of the researcher (Creswell, 2013). In this qualitative methodology, the focus of research is on the teachers and parents when it comes to collaborating and fostering a growth mindset with elementary students. Using Dweck's (2006) theory of mindset, researchers studied an elementary school with students up to the age of 9 and analyzed how an inquiry-based classroom can foster growth mindsets in students. They found that there was a need for a growth mindset in lessons with regard to learning (O'Brien, Fielding-Wells, Makar, & Hillman, 2015). They revealed that inquiry-based classrooms enabled students to solve problems in an environment in which they share with one another and encourage each other, while the teacher monitors the students and redirects when needed. By creating this environment, the teacher is

reinforcing an inquiry-based learning and growth mindset fostered by the students. Since the researchers only focused on one classroom through one video lesson, there was limited data and no longitudinal study to demonstrate how a growth mindset can be incorporated in an inquiry-based classroom (O'Brien et al., 2015).

Similar to an inquiry-based classroom, Watson (2011) described learner-centered instruction in an alternative high school in a Midwestern city in the United States. The researcher used an ethnographic methodology to examine an alternative school and its students to gain an understanding of the culture regarding learning. The study found that the school displayed characteristics that allowed for flexibility when it came to self-paced learning, collaborative instructional decision-making, with a focus on relationships, and lastly, prioritizing both academic goals and life goals. Since the researcher focused on only one school within the district, the data are limited, but nevertheless add to the literature about appropriate learning environments and the alternative school's journey. There is consequently a need to expand the research with similar case studies of other alternative schools, so that researchers can gain a perspective on other alternative school cultures.

Linking up with the idea of O'Brien et al. (2015) with regard to teachers playing an integral part within a classroom, Enriquez, Clark, and Della Calce (2017) studied how the language from children's literature and teachers' language can teach students how to address challenges and make use of a growth mindset. In this study, the teachers took advantage of the teachable moments when it comes to children's literature, but also to promote active discourse or dialogic conversation through the dynamic learning process. Enriquez et al. (2017) focused on a kindergarten classroom and how using the dynamic learning framework helps students promote a worldview, a worldview in which students have multiple perspectives that allow them to

question stereotypes. When students have a multiple-perspective view, they have a belief in positive change in terms of which their own traits can change and grow and are not permanent. Still, with a qualitative approach, the researchers had limited data at their disposal by focusing on one classroom at one school; yet, they were still able to look at the classroom development over a whole year.

**Mixed-Methods approach.** In a mixed-methods approach, the researchers (Carlson, 2018; Seaton, 2018; Seibel, 2016; Smith, 2017; Treadwell, 2010) use a combination of both qualitative and quantitative research design, which provides more avenues for data collection. Seaton (2018) explained the importance of teachers trained on how to implement a growth mindset within a high school setting and five primary school settings. The goal of the research was to evaluate if mindset belief training or implicit theories training impacted teachers' practices in the classroom. Implicit theories are an individual's understanding of his or her abilities or skills and his or her view on whether those abilities or skills can be changed or altered (Dweck, 2012). The study found that after receiving training on implicit theories, the participants felt that they could reflect on and assess their mindsets and, in turn, shift their feedback and language in the classroom. In doing so, the researcher found that teachers felt more confident in fostering a growth mindset within a classroom and shifted their feedback process. Participants witnessed a change in their language when directing speech to students because they acknowledged the importance of the feedback provided to the student and how that feedback can affect a student's mindset. By using a mixed-methods research design Seaton (2018) identified critical themes with the data collected but was also able to utilize comparisons of pre and post measurements.



While Seaton (2018) focused on the teacher aspects of growth mindset using a mixed-methods approach, Smith (2017) examined the connection between brain/body breaks and how this correlates with a growth mindset. In this quasi-experimental study, the researchers observed four first-grade classrooms. The findings aligned with Dweck's (2006) results on the existence of a correlation between how the brain functions and learns to help students build a growth mindset. However, this method also had its limitations, including the following: limited research to provide a baseline, restrictions to one grade level, and the fact that the researcher did not have sufficient statistical data.

Treadwell (2010) studied 46 fifth-grade students in an 8-week concurrent triangulation mixed-methods approach. Triangulation is the use of a variety of data through various sources and provides researchers with the opportunity to use investigator, theory, and methodological triangulation (Creswell, 2013). Treadwell (2010) found that discovery-learning techniques should be used in primary or elementary classrooms because they allow for hands-on and cooperative learning experiences, attributes of constructive learning theory. They found that students' focus and motivation improved with this type of approach. One of the limitations was the potential impact of these techniques on student performance in this kind of class and on students' motivational levels (Treadwell, 2010). Even in the light of these findings, there is a gap in the research, because no adequate studies have been conducted in an alternative learning environment in which teachers foster inquiry-based strategies at the elementary level.

Carlson (2018) studied the parents of grades 5 and 6 children who were enrolled in a gifted program in a western suburb of Chicago. The study found that parent participation demonstrated a basic knowledge of a growth mindset and a high level of exposure. In addition, in this study teachers stated that homeschool collaboration could be improved with regard to

growth mindset workshops, parent conferences, student assignments, and the overall involvement of parents in goal-setting. One limitation of the study was the small sample size of parents, representing a mere 14.8% of the intended population. With a small sample size, results may not be an accurate representation of the population's knowledge of a growth mindset. In addition, the results of the study were regarded as limited to only one district, and therefore it was not intended to generalize the results to other districts or settings (Carlson, 2018). Moreover, there has been little research on the collaboration between parents and teachers on the fostering of a growth mindset. With the lack of research on fostering a growth mindset between home and school, there is little understanding of what type of resources and support are needed for effective growth mindset interventions.

Seibel (2016) used a mixed-methods approach to examine the effect of art students' mindset on their creative ability as it relates to the art-making process. The study examined second-through-sixth-grade students in Iowa during the 2016 school year. These students received art instruction from a certified art instructor for 40 minutes every 4 days. During classroom instruction, the teacher used feedback strategies that were explicitly designed to promote a growth mindset atmosphere. Seibel (2016) found that the majority of the participants studied identified with a growth mindset and how it affected creative growth in artistic ability. The length of this study was identified as one of its limitations: it lasted for only 5 weeks, which could have an impact on the reliability of the results. One would therefore need an extended study to determine the impact that creativity has on students' beliefs and classroom atmosphere. Another limitation of the study was the self-reporting data through observations and anecdotal notes. The researcher also acted as an educator, observing and facilitating student learning, interactions, and processes, which could create a conflict of interest.

## Synthesis of Research Findings

**Growth mindset in various subjects.** Cant (2017), Enriquez et al. (2017), Saia (2016), Treadwell (2010), and O'Brien et al. (2015) focused on a specific subject area to gain a perspective on how useful growth mindset was in the environment provided. Each study (Cant, 2017; Enriquez et al., 2017; Saia, 2016; Treadwell, 2010; O'Brien et al., 2015) focused on a growth mindset within a classroom setting; however, one area that differed in the various studies was the focus on particular subject matter when fostering a growth mindset. By focusing on specific subject matter—for example, mathematics, writing, reading, or art—all these various researchers were able to demonstrate how teachers could implement a growth mindset to assist students in addressing specific problems. Saia (2016) focused on reading abilities and the fact that when a student develops a growth mindset, he or she can address scenarios concerning the subject matter of literacy. Likewise, Cant (2017) also focused on reading abilities and how teachers taught students a growth mindset to enable them to address reading challenges. By contrast, Enriquez et al. (2017), Treadwell (2010), and O'Brien et al. (2015) focused on different subject areas.

Enriquez et al. (2017) focused on children's literature, while Cant (2017) and Saia (2016) focused on reading within the classroom. While similar in their approaches, Cant (2017) and Saia (2016) differed from Enriquez et al. (2017) in the respect that it was the teachers who were guiding the growth mindset. They examined how children's books, when shared with students, helped prompt active discourse. With both the teachers' language and active discourse, students had the opportunity to implement the use of a growth mindset (Enriquez et al., 2017). Correspondingly, focusing on writing instruction, Treadwell (2010) examined collaboration among peers with guidance from the teacher, which allowed time for reflection and problem-

solving through the use of a growth mindset. Likewise, O'Brien et al. (2015) focused on mathematics, examining how students could foster a growth mindset by finding the answers within themselves and being able to rely on their peers to help develop their thinking. However, Seibell (2016) focused on the subject of art and how a certified art teacher provided instruction and feedback that were designed to promote a growth mindset atmosphere when it comes to artistic, creative ability.

**Teacher's role.** Through an examination of the research, it is evident that there are many approaches to fostering a growth mindset and the type of environment that is used when fostering mindset theories. When integrating mindsets, the literature demonstrates that the teacher's role differs, depending on the classroom environment on which the study focused. Within each classroom, a teacher has a different position he or she can play when it comes to fostering a growth mindset. In various studies (Kim, 2015; Lancaster, 2017; O'Brien et al., 2015; Postiglione, 2012; Treadwell, 2010; Watson, 2011), the researchers noted the differences in the teacher's role within the classroom; however, it is evident that in growth mindset classrooms there is focus on student-centered learning in which the teacher assumes a facilitating role. It is especially true that teachers have a facilitating role in environments that focus on inquiry-based learning or discovery-based learning as a framework for teaching.

The study by O'Brien et al. (2015) undertook research in an inquiry-based classroom in which the teacher's role was to guide and support students in their learning. In this type of learning environment, the teacher assists in the student's intellectual and psychological development by interjecting as needed to guide the student. Learning is viewed as an opportunity for students to seek answers on their own, to learn within themselves. By having an inquiry-based classroom, students can explore concepts on their own through discourse (Kim, 2015).

Kim (2015) described how teachers should use open-ended questioning and encouraged discourse to help explore concepts. Similarly, Treadwell (2010) gave a more in-depth description, explaining the idea of students being active learners within their environment. Consequently, the teachers are models, situating themselves as an example of thinking and showing students how to take charge of their learning. Bandura (1977) (as cited in Treadwell, 2010) explained that modeling is a positive approach to complement a constructivist approach and activities.

Constructivist approaches to learning allow for a student-centered classroom by encouraging students to work together to learn, rather than having the teacher as the guiding voice (Lancaster, 2017; Postiglione, 2012). Lancaster (2017) pointed out that in an alternative learning environment, student-centered instruction or cooperative learning takes place when students work in small groups or teams of learning to solve problems, finish various tasks, or achieve a common goal. Again, in this style of learning, the teacher acts as the facilitator overseeing the small groups and teams so they can help guide and redirect as needed. In Postiglione's (2012) research, the teacher also played a facilitating role in a student-centered classroom in an alternative learning environment. The study revealed that this style of class and the learning environment it creates allows students to apply their skill and or talents to gain an understanding of the instructional material. By providing a supportive and nourishing environment where one is challenging himself or herself through a classroom that supports this style of learning, it allows for empowerment by enabling students to possess a growth mindset, but also to take ownership of the learning. When students take ownership of their learning, they can self-regulate, and in so doing they can gain an understanding of their mistakes, but realize that mistakes are an integral part of a growing brain (Saia, 2016; Watson, 2011).

## **Critique of Previous Research**

The goal of the literature review was to determine how the growth mindset has been implemented in the classroom and what type of environment is the most suitable for fostering a growth mindset among students. Criticism of the existing literature was included in determining if there is a need for a study in the area. The above literature review referred to growth mindsets and environments in which growth mindsets can be used. The majority of the research (Bethge, 2018; Cant, 2017; Enriquez et al., 2017; Kim, 2015; O'Brien et al., 2015; Saia, 2016; Seaton, 2017; Seibel, 2016) suggested that there was a correlation between student growth mindset and the teacher who is fostering a growth mindset in the classroom. However, there is limited research (Kim, 2015; O'Brien et al., 2015) on fostering a growth mindset within an inquiry-based learning environment focusing on the elementary levels (kindergarten through sixth grade). In addition, there is inadequate literature on alternative learning environments in relation to growth mindsets.

Since alternative learning environments vary in their organizational structure, the research on these environments also differs. Lancaster's (2017) study examined an Arkansas Delta alternative learning school and focused on two different styles of classrooms: student-centered learning and teacher-centered environment. The results suggested that in an alternative learning environment, classes can incorporate student-centered techniques while still achieving student learning outcomes. While this research demonstrates the importance of a student-centered approach, it differs from the current study due to its focus on 25 high school students and the fact that it did not reference a growth mindset. Similarly, Postiglione (2012) examined an alternative learning environment in New York State and instructional strategies with a concentration of at-risk students in an 11th-grade English Language Arts classroom. The study

established that student-centered strategies within the classroom assisted students in their academic development. It demonstrated that student-centered approaches have an influence on students' academic success, but again did not examine a growth mindset.

Lastly, Watson (2011) studied an alternative high school to gain an understanding of how learner-centered instruction helps personalize learning to help support self-regulated learners who take control of their learning. However, Watson (2011) explained that in order to expand the research design one should include the parents. By including parents, the researcher can gain an understanding of the parents' perspectives and what their vision is for their child in terms of academic progress. In the literature, there is a significant emphasis on student-centered classrooms; however, there is a gap between student-centered classrooms in an alternative learning environment and the implementation of a growth mindset.

Within a student-centered class, students learn and grow through the classroom setting because it allows them to discover and inquire about the material presented (Postiglione, 2012). While there is literature (Kim, 2015; O'Brien et al., 2015; Treadwell, 2010) to support this style of learning, whether it be inquiry-based or discovery-based, there is limited research (Enriquez et al., 2017; O'Brien et al., 2015) on this kind of environment in the elementary grades. Kim's (2015) quantitative research focused on students ranging from the third to fifth grades. Although Kim (2015) found that in an inquiry-based classroom, students participated in active discourse more through teacher encouragement, in comparison to a traditional classroom where the teacher talked more, and the students spoke less. Teachers in inquiry-based classes talked less than teachers in traditional classes and encouraged their students to communicate more by using argumentation.

Through active discourse or discussion in the study, students had the opportunity to explore concepts without the teacher having to direct the conversation. In a similar study of a fourth-grade classroom in Queensland, Australia, O'Brien et al. (2015) found that students in this kind of setting were able to solve problems and participate in active discourse to help explore concepts they were learning in the classroom. Although the literature demonstrates that these kinds of environments are effective and assist students with their learning, one can see that this kind of class is not traditionally seen in the elementary (kindergarten through sixth grade) classroom setting.

Therefore, research in the elementary classroom (kindergarten through sixth grade) is needed because of the lack of research in the elementary learning environments. In addition, with the lack of research in alternative learning environments, the study took place in an alternative-based learning environment where teachers and parents can adjust their curricula and instruction to emphasize an inquiry-based setting. As a result of the gap in the literature, there is a need for research in an alternative learning environment that uses a discovery or inquiry-based approach to learning in an elementary learning environment. This study focused on inquiry-based learning and on how teachers and parents collaborate to foster a growth mindset within a given kind of environment.

## **Chapter 2 Summary**

The literature review consisted of five sections including, the conceptual framework of the research, a review of research literature and methodological literature, a synthesis, and a critique of the previous literature. These various sections included an overview of the teacher and school's mindsets, and of the dynamic learning framework or inquiry-based learning. This review examined the literature through Dweck's (2006) mindset theory, to gain an understanding



of growth and fixed mindset theory and how teachers influence fostering mindsets within their classroom.

There is still much to explore about mindsets in the elementary classroom and how teachers can foster these mindsets. Based on the completed literature review, this study on a growth mindset in an alternative learning environment will be of benefit to educators, parents, and researchers. Several studies (Bethge, 2018; Cant, 2017; Enriquez et al., 2017; Kim, 2015; O'Brien et al., 2015; Saia, 2016; Seaton, 2017; Seibel, 2016) have demonstrated the importance of growth mindset and its success, but only a few have dealt with the elementary level (Cant, 2017, Enriquez, 2017, O'Brien et al., 2015; Smith, 2017). Beyond that, there is only one study (Carlson, 2018) that focused on parent and teacher collaboration in relation to a growth mindset. Since mindsets play an integral part in all avenues of life, children at the elementary level need to learn what a growth mindset is, and the skills learned can help them adopt a growth mindset. By introducing growth mindset skills, parents and teachers are gearing students up for success at an early age, through the attainment of the ability to adapt, which one can apply to all facets of life.

## **Chapter 3: Methodology**

### **Introduction**

This chapter presents a comprehensive description of the research methodology and plan used in this study. In addition, there is a section that describes the research approach adopted, as well as the instrumentation used in the collection of data. The chapter goes on to outline and identify the participants in the study and their recruitment. Finally, it explains how data were collected and analyzed, in addition to examining the limitations and validity of the research.

The methodology used in this investigation was a 12-week qualitative approach, using a case study design, with a specific focus on one alternative learning environment in the United States Pacific Northwest. Qualitative research allows the researcher to study human behavior as it naturally occurs, through the use of process orientation. Process orientation occurs when researchers look for the process through which behaviors occur (Creswell, 2013). The use of this methodology allowed for an emphasis on the participants' views; thus, the qualitative inquiry focuses on the participants' views of the experiences studied, not the researcher's views (Creswell, 2013). Qualitative inquiry reasons that participants construct their reality and develop meaning based on their own experiences. Their knowledge "is based on their lived experiences and situation-specific interaction with others" (McMillan, 2012, p. 276). To that end, participants were viewed in their natural setting—in this study, a consultation meeting—to observe behavior as it naturally occurred. In addition, I observed monthly consultation meetings between the parents and teachers at the elementary level in the alternative learning environment. The context or setting of the study directly affects human behavior, and in order to fully understand the participants and what they know, they had to be observed in their natural setting. Information for this research was obtained through interviews, documents, reports, and observations.

Since participants' views can suggest diverse meanings and differing views on topics and experiences, I employed a case study research design, because of its emphasis on real-life situations and the factors that may contribute to developing a growth mindset in educational practice (Shuttleworth, 2008). In the course of the study, I examined the implementation of a growth mindset by both parents and teachers for students in elementary learning environments. These learning environments included kindergarten through sixth-grade students who participated in inquiry-based classroom learning on campus and homeschooling at home in an alternative learning environment in the Pacific Northwest.

In the course of the study, I explored the experiences of teachers and parents through the preprofessional development interview, 90-minute professional development with final thoughts sheet, observations and postprofessional development interviews relating to their classroom strategies for fostering a growth mindset and how they foster a mindset in an inquiry-based classroom. In addition, I also examined whether and how parents foster growth mindset strategies when they homeschool their children. I used Dweck's (2006) theory of mindset as a lens through which to gain an understanding of what a growth mindset is, as opposed to a fixed mindset, and of how teachers and parents can foster growth at a kindergarten through sixth-grade level of learning. Dweck (2006) explains that when individuals have a growth mindset, they have the belief that they can change or grow through hard work. By contrast, when one has a fixed mindset, one believes one is unable to change or grow, despite putting effort into trying to change. According to Dweck's (2006) theory of mindset, everyone can change from a fixed mindset to a growth mindset. Dweck (2006) explains that a child can be trained into a certain mindset at an early age, on the basis of the adult interactions they receive from both parents and teachers. Mindsets can be subjective, which means that a mindset can be changed if a child is in

an environment that is conducive to such change; thus, demonstrating the importance of fostering growth mindset strategies among students in the elementary grades (Dweck, 2006).

I explored the various facets of a growth mindset pertaining to how teachers and parents foster various strategies when teaching elementary students aged between five and eight. The study focused on teachers and parents of students at the elementary level because Dweck's (2006) theory of mindset explains that children at an early age can be trained into growth mindsets through adult interactions. By focusing on the elementary levels, it was possible to obtain an in-depth overview of how elementary teachers and parents of elementary school children can foster growth mindset strategies in their classrooms and at home. In addition to observing a growth mindset, I also examined inquiry-based teaching strategies to identify how an inquiry-based strategy influences a growth mindset. Previous studies (Kim, 2015; O'Brien et al., 2015) have examined a growth mindset within classrooms but have not studied the combination of a growth mindset within an inquiry-based classroom.

Furthermore, I conducted the study in an alternative learning environment, which added a unique element to the research. In an alternative learning environment, students usually have a positive experience, because these environments are set up to be student-centered (Lancaster, 2017; Postiglione, 2012; Watson, 2011). In a student-centered environment, a teacher or parent assumes a facilitator role and encourages students to work together to learn, rather than using the adult as the guiding voice (Lancaster, 2017; Postiglione, 2012). Studies (Lancaster, 2017; Postiglione 2012) conducted in an alternative learning environment that focus on instructional approaches have the limitation in that they do not research a growth mindset. Examining all three components—growth mindset, inquiry-based classrooms, and alternative school and parents—provided me with a unique perspective on these components.

Lancaster (2017) explains that the implementation of a growth mindset can take place in the least restrictive environment for a child. A least restrictive environment for a child is one where students participate in student-centered learning activities, and where there are no barriers to their learning (Lancaster, 2017). These barriers that deter students from learning can be academic, social, emotional, or physical. This kind of environment is typically associated with an alternative learning environment, where students can have a sense of purpose as learners, since they can use their skills to help learn the content (Postiglione, 2012). By participating in an inquiry-based environment, students can direct their learning and acquire information on their own, with the help of an educator or parent (Alfieri et al., 2011). Focusing on parents and teachers of elementary students in this qualitative case study enabled me to gain an understanding of how growth mindsets can be fostered with students as early as kindergarten, and how this can prepare students for academic success at future grade levels.

## **Research Questions**

**Research question 1.** How do teachers of elementary students in an inquiry-based alternative learning environment foster and increase home-to-school collaboration with parents to foster growth mindset concepts in the children?

When parents and teachers collaborate to determine growth mindset goals for the students, they are jointly coming up with strategies either one of them can use, and are sharing the responsibility to foster a growth mindset. Porter (2008) explains that both the teacher and the parents have complementary expertise, and hence the importance of sharing ideas and knowledge of growth mindset. It is sharing ideas and knowledge that allows for an overlap between the classroom and homeschool learning environments. By having this communication, parents and teachers are exchanging information and establishing a relationship that allows for

constant communication. Therefore, the study addressed how parents and teachers collaborated with one another in their consultations in relation to a growth mindset.

**Research question 2.** How do parents of elementary students in an inquiry-based alternative learning environment foster a growth mindset of effort and practice to their children while homeschooling?

Dweck (2010) explains that when it comes to fostering growth mindset strategies, parents' or teachers' messages can affect how a child develops a particular mindset. These mindsets can be influenced positively or negatively within either of the particular learning environments. By deliberately fostering growth mindset strategies within the homeschool environment, a growth mindset is taking a step out of the curriculum at school. Dweck (2010) points out that mindsets should not be limited to the curriculum that is taught in school, but should rather be a collaborative effort between the two learning environments. However, there have been no studies on how growth mindsets can be instilled while homeschooling elementary children. This gap in the research demonstrates the importance of the current study, because it focused on instilling a growth mindset not only in the classroom but also at home.

**Research question 3.** How do parents and teachers of elementary students collaborate with one another monthly in consultations in regard to fostering a growth mindset in their respective learning environments?

While there is research on the success of growth mindset (Bethge, 2018; Cant, 2017; Enriquez et al., 2017; Kim, 2015; O'Brien et al., 2015; Saia, 2016; Seaton, 2017; Seibel, 2016), there has yet to be a focus on growth mindset fostered both at home and in school classrooms within an alternative learning environment. Carlson (2018) found that there is a gap in home and school collaboration in regard to a growth mindset; noting, in particular, that there could be an

improvement in workshops, conferences, assignments, and involvement of the parent when it comes to fostering a growth mindset. By observing the monthly consultations, I was able to gain an understanding of whether and how this collaboration can effectively take place to assist in bridging the gap between the two learning environments.

### **Purpose and Design of the Research**

**Purpose.** The purpose of this study was to acquire information from kindergarten through sixth-grade teachers and parents in an alternative school setting to gain an understanding of whether and how teachers and parents foster various growth mindset strategies within an inquiry-based environment. In addition, I acquired information on how the teachers and parents collaborate concerning growth mindset concepts through monthly meetings called consultations. The research goal was to identify themes and discover various patterns concerning the teachers' experiences with fostering growth mindset strategies and how they set up their classrooms to foster an inquiry-based setting. According to Hanson et al. (2016) and Enriquez et al. (2017), once teachers have a growth mindset vision for their classroom, they can then begin to foster various strategies to help foster a growth mindset in students. By having these growth mindset strategies fostered, a student then has the opportunity to think, learn, and solve problems through conversations and discussions within the classroom. In addition to identifying themes among teachers' experiences, the goal was to identify themes and patterns concerning parents' experiences with fostering growth mindset strategies at home. After identifying the themes, I determined whether there were any commonalities or patterns among the themes, to establish whether any strategies emerge that were fostered by both parents and teachers emerge.

**Design.** While there are several types of qualitative research designs one can use—for example, case study, narrative, ethnography, grounded theory, or phenomenology—the research

design I used for this study was a case study. I developed a plan of action for the study to foster a growth mindset in the classroom. A case study design best fits this study, because it focused on what the participants have in common and their shared experiences when it comes to a growth mindset in an alternative learning environment classroom. Within a case study, I aimed to summarize the shared experiences of the individual participants and acquire an in-depth knowledge of how one implements a growth mindset within one's classroom and during homeschooling. By using this design, I had the opportunity to gain an understanding of this experience of growth mindset from the participants' perspective (Creswell, 2013). I intended to obtain detailed descriptions through preprofessional development interviews, 90-minute professional development with a final thought sheet, observations, and postprofessional development interviews with elementary classroom teachers and parents in an alternative learning environment and their practical experiences.

I identified critical themes to analyze and use for further understanding of the case. Analyzing themes across different cases is a cross-case analysis (Stake, 1995). Such an analysis is followed by assertions—the general lessons learned from the case. A qualitative research design consists of various data-collection methods to help gain insight into the study of a growth mindset in an elementary classroom, including interviews with and observations of participants. I conducted a semi-structured interview with approximately 10 participants, including kindergarten through sixth-grade teachers and parents. Participants differed in age, education, and years of experience of teaching elementary students. By interviewing a diverse range of educators and parents, I was able to provide a more comprehensive analysis of the research and findings. Participant observation made it possible for data collection to happen naturally for the participants, but also within their natural settings.



Combined with interviews and observations, I presented a professional development workshop to both parents and teachers to introduce the concept of a growth mindset. The professional development took place after their initial interview. I used the interviews to help guide the instruction within the professional development by taking the information gleaned from the interviews and applying it to the presentation. In the professional workshop, I made a 90-minute presentation, broken up into three sections: background of growth mindset, strategies for implementation, and collaboration. After the professional development, I observed both parents and teachers fostering the various strategies and during the monthly collaboration meetings.

The professional development in which the participants took part focused on specific growth mindset strategies of Dweck's (2006) mindset theory, and on identifying how teachers and parents collaborate. In the course of the 90-minute professional development, teachers and parents were introduced to Dweck's (2006) mindset theory, as well as various research-based classroom strategies that one can use in an elementary learning environment—whether a classroom or homeschool setting. Teachers and parents had the opportunity to collaborate, in order to share successes and/or challenges when it comes to using a growth mindset. Collaboration provided the opportunity for active discourse between various grade-level teachers and parents. One week after receiving professional development, I conducted observations of monthly consultations with parent and teacher participants and postprofessional development interviews after implementation.

### **Research Population/Sampling Method**

The target population for this study was kindergarten through sixth-grade teachers and parents within an alternative learning environment school in a Pacific Northwest school district.

This school serves elementary, middle, and high school and has approximately 1,000 students. While this school is considered a public school, it is also an alternative learning environment because of the parent partnership. Students at this school only attend school for approximately 20% of the time; for 80% of the time they are taught at home by their parents. Moreover, while students are on campus, parent partnership is a requirement for each parent who has a child enrolled at the school. A parent partnership refers to the fact that parents are on campus, participating in the classroom activities, and volunteering at least one day a month. In addition, the requirement for parents is to meet with teachers once per month to discuss how their child is progressing. By establishing this environment, the parents can individualize the instruction at home based on their children's academic needs, while being in constant communication with the teacher. With this constant communication between parents and teachers, the two stakeholders ensure that they are meeting the needs of students with the combined effort of learning both at home and in school. This combined effort makes it possible for parents and teachers to meet the needs of students who may be struggling or of those who may be facing an academic challenge (Tasai, 2013).

In this study, the 10 participants comprised of a convenience sampling of five kindergarten through sixth-grade teachers from a single alternative learning school. In addition to the teachers, I also used convenience sampling to identify five parents of students who attend kindergarten through sixth-grade classes. Convenience sampling, as described by Creswell (2013), is a sampling technique that allows the researcher to recruit participants who are both accessible and convenient for the researcher.

As stated above, each of the teachers selected teaches grades ranging from kindergarten to sixth grade in an alternative learning environment. Every teacher participant provided an in-

depth input to help address the research questions, because they all work within an alternative learning environment and foster growth mindset strategies within their classrooms. Each teacher has a different classroom program within the school, with approximately 20 students in each kindergarten through sixth-grade classroom, which allows for a representation of a diverse group of teachers. These programs include two first and second-grade combination classrooms, two first through third-grade combination classrooms, and one kindergarten classroom. By having a small sample size of five teacher participants and five parent participants, I had the opportunity to unearth detailed descriptions and multiple perspectives about a growth mindset in this kind of setting. Creswell (2007) explains that a small sample size allows the researcher to uncover identifying themes to analyze. The parent participants provided an in-depth input on how a growth mindset can be instilled at home, while collaborating with a teacher. Each parent had a different background with homeschooling, and variations on the techniques or strategies of growth mindset that they used at home.

The teachers who were asked to participate had different teaching experience, ranging from 3 to 20 years. The teachers currently use and foster a curriculum provided by the district that meets the needs of their students, while also supplementing the curriculum as they see fit. These teachers use Wednesday mornings for collaboration, including PLC (professional learning community) meetings, where they have the opportunity to examine data together. In addition, teachers participate in a TPEP (Teacher and Principal Evaluation Project), which assists in evaluating a teacher for effective practices. The five parents who were asked to participate ranged in their experience in homeschooling and had varying backgrounds, including years of experience and educational background. All the parents implemented and used their own curriculum for various academic subject areas, one that they believe met the academic needs of

their child; the school or teacher may have also provided curriculum. Parents and teachers already meet on a monthly basis to discuss the students' progress within various academic subject areas; however, for the purpose of the current study, they discussed growth mindset in addition to the academic subject areas.

To gain insight from these teachers throughout the study, I placed letters in the teachers' school mailboxes explaining the study at large and requesting their participation in the study. On a separate page, there was a consent form for the participants to sign, which explained the study, and a statement that gave the participants the right to withdraw from the study at any time. Similarly, to gain insight from parents during this study, I sent out letters to families of the kindergarten to sixth-grade parents explaining the study and requesting their participation. Parent participation in the study was voluntary, and participants had the right to withdraw at any time without any penalty.

### **Instrumentation**

I conducted pre- and postprofessional development interviews with the parent and teacher participants. After the semistructured interview, both parent and teacher participants received and participated in professional development based on Dweck's (2006) mindset theory, explicitly focusing on growth mindset in the elementary age. This professional development identified growth mindset concepts and strategies fostered by parents and teachers of kindergarten through sixth-grade students. These concepts helped the participants to support a growth mindset in both learning environments. After the professional development, parents and teachers completed a final thoughts sheet. Immediately following the professional development, parents and teachers were expected to foster various growth mindset strategies with the children, in line with the ideas of Dweck (2006), as suggested in the training. I conducted weekly observations, commencing

one week after the participants had received professional development. After completing the observations, I carried out a postprofessional development interview with each of the participants. This helped me to gather information and draw conclusions about growth mindset strategies and collaboration between parents and teachers.

Throughout the duration of the study, I collected information over a 12-week period, through preprofessional development interviews, 90-minute professional development with a final thoughts sheet, weekly observations of consultations, and postprofessional development interviews, and texts, artifacts, and documentation from parents and teachers. During the weekly observations, I used anecdotal field notes to record and track teachers' and parents' progress and/or any challenges they faced when fostering various growth mindset strategies both during homeschooling, classroom, and during consultations. After collecting the information, I gathered and analyzed the data to code and identify themes among the implemented growth mindset strategies. In addition, both pre-and postprofessional development interviews were semi-structured and consisted of open-ended questions with both predetermined questions, as well as clarifying questions that may have arisen based on questions and answers within the interview.

Gaining both authentic and truthful responses from all participants was essential to obtaining relevant information about their teaching environments. I conducted all interviews within an alternative learning environment in a public-school setting; responses were not collected or solicited from students in any way or form. All communication within the study was solely through me and the voluntary adult teacher and parent participants. I gathered information from the teacher and parent interviews and recorded it and took field notes as needed. Data collection focused on teachers' and parents' responses about their use of growth mindset and the

collaboration among the two sets of participants. All of the information collected in the various forms was then triangulated.

**Professional development.** As stated above, the professional development that was presented in this study related to Dweck's (2006) mindset theory. Dweck (2006) believed that mindsets could be developed as early as 4 years of age; and hence the importance of fostering mindset strategies at a young age in different learning environments. The professional development was presented to elementary teachers and parents who voluntarily participated in the study. The professional development took place within a classroom within the alternative learning environment where the study took place. It lasted 90 minutes and was separated into three parts. The first part of the professional development was an introduction to mindset theory and what growth mindset and fixed mindset is. The second section was a detailed description of strategies of implementation in learning environments. The last section was a time for participants to work within groups to share ideas and create a list of strategies one can use in the different learning environments. This list of methods assisted teachers and parents in ensuring they are teaching their elementary students a growth mindset. The rationale was to partner up teachers and parents who share instruction of a student, this would enable them to collaborate and examine the similarities and differences in strategies based on the needs of that students.

### **Data Collection**

I was an observer, facilitator, and an interviewer during the study, and collected the various data throughout the study. Direct data collection was preferred to any other method, since I wanted to be close to the data for a fuller understanding of the experience (McMillan, 2012). The three data-collection methods used were interviews with the teachers and parents, observations of the teachers' and parents' consultations, as well as the collection of various

documents and artifacts and visual materials from teachers and parents, including a final-thoughts sheet from the professional development. I conducted a preprofessional development interview to determine the participants' knowledge on growth mindset and if and how they foster a growth mindset. In addition, a postprofessional development interview to see the knowledge they learned about growth mindset and how they fostered growth mindset within their respective learning environments. After the professional development, I collected a final-thoughts sheet to gain insight on what participants gained from the 90-minute professional development. Observations occurred after the preprofessional development during monthly consultation times between the parent and teacher participants. Lastly, I collected various copies of teacher and parent planners to see how they fostered growth mindset into their everyday lessons and various visuals that participants used around their classrooms.

**Interviews.** The most prominent instrument of data collection that was used for this study was a semistructured interview. As the researcher, I conducted a semistructured interview with the selected participants. The semistructured individual interview consisted of a set of predetermined questions intended to elicit a specific narrative regarding the specific research questions. I intended to gain knowledge based on the participants' experience. These experiences assisted in prompting questions to ask during the interview; the latter may have differed from the predetermined questions to gain a better understanding of participants' experiences and responses. The goal of the research was to gain knowledge of growth mindset strategies that elementary teachers foster in their classroom, as well as strategies fostered at home by the parents. Consequently, the interview questions were centered on this narrative and intended to draw out the experiences of the participants. The questions relating to the preprofessional development interview are located in Appendix A, and to the postprofessional development

interview, in Appendix B. Two interviews took place during the study—the first was the preprofessional development interview, and the second, the postprofessional development interview. As the researcher, I acted as an observer and an interviewer during the study. Data were collected throughout the study through a direct collection, which was the preferred method over-collecting data from other sources. By using direct collection, I was able to be close to the data for a fuller understanding (McMillian, 2012). The three data-collection methods included the following: interviews of the teachers and parents, observations of consultations, and a collection of other various documents and artifacts from teachers and parents.

The duration of the study was approximately 12-weeks. I conducted individual in-person interviews, as one of the main ways to collect data. By conducting the interviews in the participants' classrooms, it allowed teachers to be in their natural environment. To conduct the parent interviews, I used a centralized location at the school. All interviews were recorded with a digital recorder, and each teacher and parent signed a waiver, acknowledging that the responses would be recorded. Recording the interviews made it possible for the data to be transcribed and coded; after listening to, transcribing, and coding the data, the audio recordings were deleted. To ensure confidentiality, pseudonyms were used for each of the teacher participants. The pseudonyms were assigned at random, based on the order of the initial interview. Pseudonyms were assigned and are represented by the letter T for a teacher, preceding the number in the order they were interviewed—that is, T1, T2, T3, T4, T5. Pseudonyms were also used for parents and assigned at random to ensure confidentiality; these were represented by the P for a parent, preceding the number in the order they were interviewed—that is, P1, P2, P3, and so on.

**Observations.** In addition to the interviews, I observed the teachers within their natural environment, that is, the consultation setting where teachers and parents meet; this setting was



unique to the teacher and parent. These observations took place after the preprofessional development interview and before the postprofessional development interview. Observations that were made in the natural environment provided me with the opportunity to take notes and witness teacher and parent interactions in real-time. I observed the participants in their monthly consultations and used the language tracking sheet (see Appendix D) to see if and how growth mindset language was used. In addition, during consultation blocks, I observed the interaction that occurred between parents and teachers in regard to a growth mindset. Consultations occur once a month between parent and teacher to discuss learning happening both at home and in the classroom. During the observations, I took anecdotal field notes to record observations. This allowed me to take quick, simple notes to determine the various strategies to foster a growth mindset in the classroom. In addition to note-taking, I used a self-designed language tracking sheet to use with the participants (see Appendix D). This worksheet allowed me to track growth and fixed mindset language that may have been heard throughout a given consultation block. After receiving the professional development, I conducted observations of the monthly consultations between participants.

**Final thoughts sheet.** At the end of the 90-minute professional development I collected a final thoughts sheet (see Appendix C). I distributed the final thoughts sheet out to both parent and teacher participants. The final thoughts sheet allowed for the participants to reflect on the professional development that was provided. On the sheet provided to the participants I included two fill-in-the-blank questions which included: (a) one thing I learned from the professional development, and (b) one strategy I plan to implement. These fill-in-blank questions provided a quick overview of something they learned but also something they planned to implement within their respective learning environments.

**Text, artifacts, and visual materials.** In conjunction with the interviews and observations, with permission from the teachers and parents, I collected and analyzed various documents, artifacts, and visual materials in Appendix G. These artifacts were generally personal records from the teachers and parents, including, but not limited to, the following: lesson plans, newsletters, rules and principles, curriculum, and pictures. Gathering these artifacts and visual materials, in particular posters, enabled me to gain an understanding of the workings of the elementary teachers' and parents' learning environments regarding the implementation of a growth mindset. While these documents alone did not provide all the information necessary to answer the research questions, they did provide some useful data additional to the interviews and observations.

### **Identification of Attributes**

Several items were considered when examining a growth mindset and collaboration among parents and teachers. Parent experience, together with the elementary teacher, was the fundamental characteristic used to outline this study. Carlson (2018) states that when both the parents and classroom education teachers come together and collaborate, there is a positive impact on academic outcomes for the children. Carlson (2018) and Schleider et al., (2016), explained how parents' beliefs about intelligence or mindsets are relevant when it comes to their children. Both the parent and teacher can contribute to fostering a growth mindset with students in elementary grades. Parents' and teachers' beliefs about growth mindset from the study were considered when examining which growth mindset concepts are beneficial when it comes to teaching elementary students. Dweck's (2006) growth mindset theory explains that mindsets can be changed if a child is in an environment that is suited to support a growth mindset.

## **Data Analysis Procedures**

I conducted interviews with the participants. The interview process consisted of two interviews, pre- and postprofessional development, which ranged in duration depending on participants' responses. I had an estimated 30 minutes to an hour to complete the interviews, however, some took longer, depending on the participant. Each of the participants participated in a pre-and postprofessional development interview, which I recorded alongside field notes. The participants met in their weekly elementary PLC to discuss growth mindset goals. I conducted 30-minute weekly observations that occurred during morning and afternoon blocks, both teaching and consultation blocks, in addition to observing weekly PLC meetings. Information obtained from both interviews and observations was then analyzed and coded to determine whether there were patterns, similarities, or differences among the participants' implementation of a growth mindset and strategies used. The interviews had open-ended questions, which allowed for authentic responses from the participants. Authentic responses provided me with an understanding of growth mindset strategies in the various elementary inquiry-based classrooms.

## **Limitations of the Research Design**

The goal of the case study was to gain perceptions and understanding of whether and how the participants in an alternative learning environment foster a growth mindset in their respective learning environments. The use of a small sample size of five teachers and five parents constitutes a limitation of the study. The limited number of participants potentially hindered the findings from being applied to a larger population. In this study, all of the participants were teachers of students from kindergarten through sixth grade. Only having teachers of these grades are considered a limitation, because children at this age are still developing their mindsets and can be influenced by many factors. The next potential limitation was the shared instruction

among teachers and parents within the school. Since students receive 80% of their instruction at home, I was unaware of growth mindset strategies taught at home and how these could play a part in the classroom. In addition, since parents played a prominent role within the classroom through parent partnerships, I not only saw strategies fostered by the teacher, but also by the parents in the classroom. Another possible limitation was that the interviews were conducted only with teachers and parents, and thus there were no data or findings from students. The students were not participants within the study, and their perceptions concerning a growth mindset were not addressed.

I also gathered text, artifacts, and visual materials from teachers and parents, but these documents only provided a small amount of useful data. Some documents, including lesson plans and notes, were incomplete and the data were inaccurate or inconsistent. Therefore, there were gaps in documents, which led me to ask more questions of the teacher or parent, or which may not have allowed for reliability. Lastly, conflict of interest could have been a potential limitation and ethical consideration because of the established relationship between the teachers and me. While I was not in a position of authority, I did interact with the participants on a daily basis. However, I used the process of bracketing, in which I put aside any personal experiences, biases, preconceived notions, or prior knowledge I may have had in relation to the research topic (Creswell, 2013). In order to complete this process of bracketing, I made a list of characteristics to determine my biases and gain an understanding of how I could counteract these biases or preconceived notions I may have. In addition, subjectivity from my perspective may be considered a limitation, since it could have resulted in reliability and validity issues.

**Validation.** In an attempt to obtain valid information for this study, all information I recorded immediately by me, directly as it occurred, in order to prevent me from making

subjective comments. For the duration of the study, I analyzed parent and teacher responses regarding their implementation strategies of a growth mindset and how teachers participated in an inquiry-based classroom to help foster a growth mindset. In addition, I observed collaboration between parents and teachers. I, therefore, in this study, had a concentration towards teacher statements, as well as how the teachers and parents fostered growth mindset strategies within their respective learning environments to meet the needs of their students.

**Credibility (trustworthiness).** Throughout this process, the participants were expected to produce both truthful and accurate responses. Moreover, the participants were expected to conduct themselves ethically and professionally during the entire study. As a researcher, it imperative to have a non-biased viewpoint when it comes to analyzing and examining recordings. I therefore strictly adhered the recordings to allow for an objective viewpoint. This included being cognizant of not letting personal feelings or opinions influence this study in any way. In doing so, I applied reflexivity to the study. Reflexivity allowed me to methodically evaluate myself and maintain an objective point of view throughout the entire study by addressing and making my background as a researcher, the ethical considerations, and assumptions known (Creswell, 2013). In addition to reflexivity, I used bracketing—a process by means of which I put aside biases when it comes to a growth mindset and any prior knowledge I may have gained from research. Lastly, I used member checking through the use of transcripts review to establish credibility and trustworthiness. I provided a copy of the preprofessional and postprofessional interview transcripts to each of the participants to review the documents. By having the participants review the interviews, it ensured that the interviews that were collected and recorded accurately, but also provided the opportunity for the participants to confirm what was said in the transcripts or if anything needed to be added to or changed (Candela, 2019).

Credibility in qualitative research is based on the accuracy and the trustworthiness of the data collected (Creswell, 2013). By fostering other data collection methods, that is, texts, artifacts, and documents, over and above interviews and observations, one is applying the strategy of triangulation. Triangulation, as explained by Creswell (2013), is a process in which the researcher uses various data to build themes. Data triangulation was used because this type of triangulation looks at a variety of data sources; for this study the sources used included: pre- and postprofessional interviews, observations, and texts, artifacts, and documents. Convergence triangulation occurred through interviewing both parents and teachers from the same alternative learning environment. In doing so, I was able to cross-reference the parents' and teachers' responses regarding fostering a growth mindset in an elementary setting.

Building themes is an essential process for a researcher; however, the primary way of discovering the themes is through coding. Coding allows the researcher to look through the data to help understand what is occurring in the data collection, and then discover specific themes or characteristics that are evident. Once the researcher codes the data, he or she can converge the themes from multiple sources, thus adding validity to the research (Creswell, 2013). I used a computer software (ATLAS.ti) to help code the data, so that this could be done in a more efficient process. Moreover, I reported all discrepant data—both negative and positive. The presentation of both positive and negative evidence supports the credibility of the study. In the course of the study, I coded the data into categories that have similar characteristics to establish whether a pattern emerged. In qualitative research, the researcher must establish trust and credibility when it comes to the research process.

**Dependability (reliability).** In the study, the data-collection methods included interviews, observations, and field notes to help glean information on the study in regard to

growth mindset concepts. To protect the validity and dependability of the study, I followed the protocol and set of procedures to help triangulate information through multiple data points and to help control research bias. In addition, I directly collected information from the participants' interviews and the researcher's observations of the teachers fostering various strategies in their daily routines. As the researcher, I maintained authenticity using reflexivity throughout the study when reporting the findings of the particular study and took into consideration the context and data.

### **Expected Findings**

I identified common attributes and themes related to kindergarten through sixth-grade teachers' and parents' implementation of a growth mindset. The outcomes of this study were expected to yield an understanding of growth mindset strategies that both elementary teachers and parents can use in an alternative learning environment. Moreover, I hoped to establish whether and how parents and teachers can collaborate when it comes to fostering growth mindset concepts. By examining the collaboration, I hoped to find common themes between homeschool and classroom to identify how participants work together to foster growth mindset concepts in the students. By having access to both the parent and teacher perspectives, I hoped to establish whether and how growth mindset concepts are applied in an elementary learning environment; and how other parents and teachers can use these strategies. The hope is that these findings will contribute valuable information to the field of education and provide adequate elementary classroom and homeschooling instructional strategies when it comes to a growth mindset.

### **Ethical Issues**

**Conflict of interest assessment.** I am a kindergarten teacher at the alternative learning environment and have a daily working relationship with the participants, but with no authority.

Consequently, I already had an established working relationship with the participants; and during the study, I spent time observing and interviewing the participants. In the light of already having an established relationship with the participants, my presence may have resulted in me becoming a participant within the community and influencing the results. Similarly, my experience with working with participants may initially have prejudiced them in their observations of certain phenomena and in how they saw patterns in the data. To eliminate such prejudice or bias, I had the participants review the transcripts to ensure the data represented their interpretations of the findings. However, I am not classified as an authority figure, and therefore none of the participants would be classified as my subordinates. In addition, no financial interests were involved in the study.

**Researcher's position.** As I was the only principal researcher throughout the study, I conducted all the interviews with the participants myself. In addition, the elementary teachers were observed in an effort to gain perspective of how they fostered a growth mindset within their classroom and how it pertains to the interview responses. All participants were anonymous when presenting data, and procedures were followed in an effort to protect the privacy of all participants. Pseudonyms were used in place of the names of the participants, including in the data-collection process—that is, interviews and observations. Participants in this study were recruited through letters and on a volunteer basis. When recruiting on such a volunteer basis, I took the necessary steps to ensure participants were aware of the process in which they were choosing to engage, why it was necessary, and how it would be used. Moreover, all participants had the right to withdraw from the study at any time, without consequences or penalties. The study consisted only of adult participants. No children were interviewed, questioned, or spoken to whatsoever throughout the study.



**Ethical issues in the study.** Research ethics are highly relevant when conducting a study because they hold the researcher accountable for his or her actions and ensure that ethical codes are followed. Therefore, in the course of this study, I took the necessary steps to ensure that I conducted research to the highest standards. There were no foreseen ethical issues in this study, and the likelihood of ethical issues arising from this research was minimal. There was no predictable detriment arising from participation through either the process or the findings of the research (British Educational Research Association, 2011). If any unexpected detriment had been caused to the participants, I would have immediately brought this to the attention of the participants. The research design used was constructed to ensure that participants remained anonymous and that confidentiality was maintained. By using a case study design, I employed methods that fit the purpose of the study. To ensure confidentiality, guidelines were strictly adhered to as a requirement of the Institutional Review Board of Concordia University of Portland. After each session with the participants, I used a flash drive to back up the data, which was stored in a different location from the computer. Both the computer and flash drive was password-protected, and only I knew the password. Records will be kept by me for a minimum of 3-years and then destroyed.

### **Chapter 3 Summary**

The purpose of the study was to obtain information from parents and teachers and how these two sets of participants can collaborate and how they foster a growth mindset in their own learning environments. Using the lens of a case study and the foundational research questions, my goal was to identify what the participants have in common and their shared experiences with a growth mindset in an alternative learning environment. This chapter has examined the sampling method that was used to identify participants for this study. Through observations and

interviews, these participants were expected to produce substantial and contributory information for the study. The use of interviews and observations enabled me to gather first-hand information. Moreover, the semistructured interview protocol enabled me to use predetermined open-ended questions, but also prompted further questions based on the predetermined questions. The goal of the interview was to help obtain knowledge of growth mindset strategies and identify common themes among the shared experiences of elementary teachers in an alternative learning environment.

By using Dweck's (2006) theory of mindset as the conceptual framework, the research questions were used to acquire both the practical experiences and perceptions of elementary teachers and the strategies for growth mindsets within their inquiry-based classroom. Validity and credibility are necessary for a successful study, and therefore a protocol and set of procedures were put in place for the triangulation of information from multiple data points. There were a minimum number of limitations and ethical concerns relating to the study. The following chapter presents the data analysis and the results of the study.

## **Chapter 4: Data Analysis and Results**

### **Introduction**

The purpose of this case study was to acquire information from five kindergarten through sixth-grade teachers and five parents who collaborate in an alternative learning environment setting and foster growth mindset within their learning environments. This study was to investigate whether and how these two participants groups (five teachers and five parents) foster growth mindset strategies in the two different learning environments, both at school and at home. I chose a case study approach so that I could closely examine both parents and teachers during consultations and how they discussed how they fostered a growth mindset in their respective learning environments. I conducted both pre-and postprofessional development interviews, along with professional development for both parent and teacher participants, which focused on a growth mindset. As the only researcher, I observed monthly consultations between parent and teacher participants, where discussions about growth mindsets occurred. Chapter 4 presents the results of the study, including the analysis of both the parents' and teachers' responses in the pre-and postprofessional development interviews, the final-thoughts sheet from the professional development, as well as my observations of the monthly consultations between parent and teacher participants.

### **Research Questions**

**Research question 1.** How do teachers of elementary students in an inquiry-based alternative learning environment foster and increase home-to-school collaboration with parents to foster growth mindset concepts in the children?

When parents and teachers collaborate to determine growth mindset goals for the students, they are jointly coming up with strategies either one of them can use, and are sharing

the responsibility to foster a growth mindset. Porter (2008) explains that both the teacher and the parents have complementary expertise, and hence the importance of sharing ideas and knowledge of growth mindset. It is sharing ideas and knowledge that allows for an overlap between the classroom and homeschool learning environments. By having this communication, parents and teachers are exchanging information and establishing a relationship that allows for constant communication. Therefore, the study addressed how parents and teachers collaborated with one another in their consultations in relation to a growth mindset.

**Research question 2.** How do parents of elementary students in an inquiry-based alternative learning environment foster a growth mindset of effort and practice to their children while homeschooling?

Dweck (2010) explains that when it comes to fostering growth mindset strategies parents' or teachers' messages can affect how a child develops a particular mindset. These mindsets can be influenced positively or negatively within either of the particular learning environments. By deliberately fostering growth mindset strategies within the homeschool environment, a growth mindset is taking a step out of the curriculum at school. Dweck (2010) explains that mindsets should not be limited to the curriculum that is taught in school, but rather it should be a collaborative effort between the two learning environments. However, there have been no studies on how growth mindset can be instilled while homeschooling elementary children. This gap in the research demonstrates the importance of the current study, because it focused on instilling a growth mindset not only in the classroom but also at home.

**Research question 3.** How do parents and teachers of elementary students collaborate with one another in monthly consultations in regard to fostering a growth mindset in their respective learning environments?

While there is research on the success of growth mindset (Bethge, 2018; Cant, 2017; Enriquez et al., 2017; Kim, 2015; O'Brien et al., 2015; Saia, 2016; Seaton, 2017; Seibel, 2016), there has yet to be a focus on growth mindset fostered both at home and in school classrooms within an alternative learning environment. Carlson (2018) found that there is a gap in home and school collaboration in regard to a growth mindset, noting, in particular, that there could be an improvement in workshops, conferences, assignments, and involvement of the parent when it comes to fostering a growth mindset. By observing the monthly consultations, I was able to gain an understanding of whether and how this collaboration can effectively take place to assist in bridging the gap between the two learning environments.

**Description of the sample.** The 10 participants in this study were five teachers and five parents of students in kindergarten through sixth grade in an alternative learning environment. Each participant volunteered to participate in the study, including participation in a preprofessional development interview to gain insight into the participants' teaching background and their familiarity with a growth mindset. After the preprofessional development interview, the participants took part in a 90-minute professional development session about a growth mindset. During this professional development session, the participants acquired information about Dweck, growth mindset, fixed mindset, and various strategies one can foster in different learning environments. At the end of the professional development session, the participants (teachers and parents) had the opportunity to collaborate and plan with one another on how they would foster a growth mindset within their respective learning environments. After the professional development opportunity, I conducted observations during monthly consultations between parent and teacher participants. During this time, I took field notes in regard to a growth mindset. These observations occurred between the professional development and postprofessional development

interviews. Lastly, I conducted postprofessional development interviews to gain an insight into whether and how parents and teachers fostered a growth mindset in a kindergarten through sixth-grade learning environment.

All five teachers were female, aged between 30 and 53. All five teachers hold master's degrees in elementary education. The teacher participants range in their years of teaching experience as little as four years of to as high as 21 years. Of the five participants, the races included both white and Asian. Since this study focused on elementary teachers and parents, all the teacher participants taught grades kindergarten through sixth grade with various combinations of grades. The five parent participants included one male and four females, aged between 28 and 42. Three of the five parent participants hold bachelor's degrees in various fields. Among the parent participants, there were both white and Hispanic/Latino represented within the group. Moreover, the parent participants worked with students who were in kindergarten through fourth grade. Their assigned pseudonyms identify participating teachers and parents.

I introduced the study to the teachers in a letter that I placed in their school mailboxes myself. The letter contained a description of the study, the criteria for participation in the study, and instructions on how to volunteer to be a participant in the study. Similarly, the parents received the same letter in their child's classroom take-home folder. I sent this letter out to 13 teachers and 100 parents who shared teaching responsibilities through homeschool and classroom experiences in kindergarten through sixth grade. The criteria for eligible participants included the following: (a) teaching kindergarten through sixth grade, (b) participation in monthly consultations with a participating teacher or parent, (c) willing participation in professional development.

## **Research Methodology and Analysis**

I employed a case study research design to examine how teachers and parents in an alternative learning environment collaborate to foster a growth mindset in kindergarten through sixth-grade students. I used Dweck's (2006) mindset theory as the conceptual framework, as described in previous chapters. In order to gather data from the participants, I scheduled an initial interview, and this interview was prior to the participants receiving professional development. The preprofessional development interview consisted of background information and general questions about growth mindset. In addition, there was a 90-minute professional development session to provide teachers and parents with the strategies and resources to foster a growth mindset within their respective learning environments. In addition, the parents and teachers had the opportunity to collaborate and plan on how they would foster a growth mindset in their learning environments. Prior to the professional development, I observed three to four monthly consultations between parents and teachers where they would discuss academic topics and the implementation of a growth mindset. I conducted a postprofessional development interview, in which each participant gained a deeper insight into how the participants fostered a growth mindset. These postprofessional development interviews served various purposes, including examining the participants' level of understanding of growth mindset, fixed mindset, and implementation thereof in a kindergarten through sixth-grade learning environment at home and at school. Lastly, I collected lesson plans and posters from parents and teachers to see how they fostered a growth mindset in Appendix G.

After all the data were collected, I transcribed the results of the interviews and observations from the recordings. After transcribing the interviews and observations, each of the participants had the opportunity to review his or her transcripts for accuracy before I began

coding. After uploading the transcripts (pre-interview, post-interview, and observations) into ATLAS.ti, a qualitative analytic software, I was able to review the data. I used this software to assist me in the coding and analysis of the data collected. After uploading the transcripts, a number of themes developed with the assistance of the ATLAS.ti coding software. Once the coding was complete, I then categorized the information into themes and reviewed the themes for their relevance to the research questions.

**Coding process.** After all the data had been collected and transcribed, I uploaded all the documents into ATLAS.ti for the coding process. I began with Dweck's (2006) mindset theory as the conceptual framework to begin the coding process. After using Dweck's (2006) mindset theory as a starting point for data analysis, I analyzed the preprofessional development interview results, professional development final thoughts sheets, observations of consultations, and lastly, the postprofessional development interview results. Using the conceptual framework as a starting point provided a direction for disaggregating up into manageable parts for coding. After receiving and identifying 34 initial codes, I grouped the codes according to their commonalities, and a total of eight codes emerged from the data.

## **Summary of Findings**

The purpose of this study was to gain a better understanding of collaboration as it relates to fostering a growth mindset between parent and teacher participants within an alternative learning environment. The data introduced in the following sections relate to the following points: preprofessional development interview, professional development, observations of consultations, and postprofessional development interviews. To establish a basis for the preprofessional development interviews, I used the perceptions and knowledge that the participants had without having received any professional development from me. I took the



preprofessional development interviews and used them to develop a professional development session that would take their prior knowledge, if any, and develop it further. During the professional development, the participants were exposed to Dweck's (2006) definition of growth and fixed mindset and strategies for implementation. By contrast, the postprofessional development interview was a reflection of the participants' perceptions following the professional development, after they had had an opportunity to foster strategies and to collaborate.

When transcribing the preprofessional development interviews, final thoughts sheets, observations of consultations, postprofessional development interviews and artifacts, a number of similarities in the comments began to emerge. It was apparent in the preprofessional development interview that the teacher participants had more knowledge about growth mindset than the parent participants. By contrast, the parent and teacher participants both struggled when it came to defining a fixed mindset. Even with the discrepancy between the parent and teacher participants when it came to growth and fixed mindset, both participants encountered a time when students lost motivation. After receiving professional development, during the postprofessional development interview, the participants were more confident when it came to a growth mindset and a fixed mindset. Therefore, there was not as large a discrepancy in the answers of the teacher and parent participants. In addition, during the postprofessional development interviews, participants discussed students' motivation, but during this interview, they mentioned how a growth mindset played a part in that motivation.

Both the teachers and parents were able to foster growth mindset strategies in their respective learning environments, based on the professional development they received from me. Moreover, the parents and teachers were able to take what they learned from professional

development and tailor it to their own learning environments and add it to their planners (see Appendix G). In addition, participants were able to share and plan within the professional development but also were able to discuss and collaborate throughout implementation due to their monthly consultations. By collaborating, parents and teachers observed that encouragement was a crucial component in teaching a growth mindset. This encouragement was not only imperative for students, but also served as encouragement from teacher participants to parent participants. Both teachers and parents noted that after fostering growth mindset strategies, students exhibited an increase in persistence when it came to their academic work. In addition, both parents and teachers noticed how their own mindset and the language they used could have an impact on their children's mindset. They also observed how a growth mindset coincides with social-emotional learning and that using a growth mindset involves looking at the child as a whole.

Eight themes emerged from the sum result of analyzing data related to observations and interview responses of both participants. Table 5 lists the themes that developed as a result of the data analysis process. Each of these themes relates to Dweck's (2006) mindset theory and growth mindset, but also highlights the importance of collaboration between the two participants, namely parents and teachers. Mindset theory refers to the way individuals characterize their performance and how they may respond to or approach different facets of learning. Dweck (2006) explains that an educator can develop appropriate responses when it comes to approaching learning or responding to failure.

Table 1

*Themes*

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Theme 1: Persistence
Theme 2: Mindset Transferability
Theme 3: Growth Mindset Language
Theme 4: Elementary Levels and Foundation
Theme 5: Collaboration and Growth Mindset
Theme 6: Social-Emotional
Theme 7: Embracing Challenges and Self-Talk
Theme 8: Encouragement

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**Presentation of Data and Results**

**Preprofessional development interview.** The 10 participants selected for this study were sent an e-mail from the researcher requesting the time they would like to schedule for their interview. For the preprofessional development interview, I had a predetermined location on the school campus that would allow for confidentiality. To conduct the preprofessional development interviews, the teacher participants met outside the teachers' contractual hours—either before or after school. In addition, for the parent preprofessional development interview, the parents came either before or after school hours. Each of the initial interviews was allocated an hour to complete; nine of the 10 interviews lasted 30–40 minutes, and one interview lasted 20 minutes. The preprofessional development interview questions are presented in Appendix A, and consisted of predetermined questions. I used predetermined questions based on the conceptual framework of this study. I conducted field testing with teachers and parents who were not participants in the study to determine whether there were any flaws, limitations, or other weaknesses in the preprofessional development and postprofessional development interview

questions. Dweck's (2006) mindset theory was used as a starting point and then clarifying questions were asked. The predetermined questions served to obtain background information from the participants regarding their experience in alternative learning environments and teaching, and to determine whether the participants knew how to define a growth/fixed mindset. After completing all the preprofessional development interviews, I transcribed the data, and uploaded it into ATLAS.ti to assist with the coding and analysis of the data. Coding the preprofessional development interviews provided me with the opportunity to uncover a number of themes, which are outlined in the following section.

**Mindset definition.** To gain a better understanding of both parents' and teachers' perspectives of a growth mindset, one needs to understand the definitions of both growth and fixed mindset and how these two terms coincide with one another. For the preprofessional development interview, I did not define either growth or fixed mindset for the participants. Not defining these terms ensured the data would not be skewed or influenced by me. Dweck (2006) describes a growth mindset as a belief that success can be developed and learned through one's failures, thus causing one to persevere when facing a challenge. On the other hand, a fixed mindset is an individual's belief that he or she cannot change, causing him or her not to persevere but rather to give up in the face of a challenge (Dweck, 2006).

When asked what a growth mindset was, all five teacher participants were able to define it in terms very similar to Dweck's (2006) definition of a growth mindset. For example, T1 explained that "Growth mindset is the belief that one continues to learn and improve skills throughout life. There is not anything that is impossible, and not being good at something is not an excuse for not working towards improvement. Everyone can learn and gain skills in any area." Similarly, T2 stated, "Growth mindset is the belief that one's intelligence can be

developed with hard work, effort, and a focus on learning. Individuals with a growth mindset believe they can learn anything if they work hard and accept challenges as opportunities to grow.” When asking parent participants the same question, 3 of the 5 parent participants were able to define the term. For example, P1 explained, “Growth mindset is a means to teach kids to continue trying even when they’re feeling stuck.” Similarly, P3 stated, “I believe it means that as you work on things and try your hardest, you will continue to do better until you master it.” However, two of the parent participants stated they did not know the definition. When I asked if they wanted to take a guess, P2 stated, “Along the line of falling in love with learning.”

Contrastingly, when asked I asked the participants how they would define a fixed mindset, there were stark differences on who could define what a fixed mindset was. Three of the five teachers were able to define what a fixed mindset was. For example, T1 described it as follows:

A fixed mindset is a belief that a skill set is limited or capped. One is either good or bad at different subjects. Someone with a fixed mindset may believe that they are bad at math and will always be bad at math. They see no need to try to improve their skills in math. Similarly, T3 responded as follows: “I would say that is when students have more of a negative towards learning. When students say, they can’t do something or do not want to try new concepts.” Both T2 and T5 were teachers who were able to define a growth mindset, but when asked what a fixed mindset was, they did not know. For example, T2 stated, “No, I do not.” When the parent participants were asked about a fixed mindset, two of the five parents were able to define a fixed mindset. Parent participants P2, P4, and P5 responded as follows: “Not sure.” “No, I do not.” and “No.” P1 defined a fixed mindset as follows: “A fixed mindset promotes ideas that use the words like ‘always’ and ‘never’—I always make the same mistake; I’ll never

get this; I can't do this. It says, 'I'll never change—this is the way I am.'" Whereas P3 stated, "A fixed mindset is giving up and saying you just can't."

**Teaching growth mindset.** While eight of the 10 participants were able to identify a growth mindset when I asked if they had any experience of teaching a growth mindset, seven of the 10 participants did not have any experience teaching growth mindset. Four of the five parents explained they had no experience teaching a growth mindset, whereas one of the five explained that she had used "some" strategies. When I asked more details on how they foster a growth mindset, P3 described how she encouraged her children to keep trying and practicing. On the other hand, 3 of the 5 teacher participants explained they had taught some growth mindset within the respective learning environment. For example, T2 described her teaching experience with a growth mindset by using posters for visual reminders for students, short videos, and mini-lessons.

However, when I asked how the participants respond to a student saying, "I can't do this," the parent and teacher participants demonstrated the use of a growth mindset, even if they were unable to define a growth mindset at the beginning of the interview. I found a commonality among eight of the 10 participants' answers in which they used growth mindset strategies or language. When teacher participants were asked about approaching a student who says, "I can't do this," four of the five teacher participants explained they used the use of growth mindset strategies or language when approaching such a student. For example, T1 stated that one of the most straightforward responses was simply to add the word "yet" to the end of the phrase. T3 explained, "I say, 'it doesn't need to be just like mine; keep trying! The more you practice, the easier it will be, and you'll just keep getting better.'" Three of the five parent participants used growth mindset strategies or language when approaching a student who says, "I can't do this."

P5 described the use of the word yet, “Well, ‘yet’ is a big part of the response. ‘You may not be able to do this yet—you are learning how to do it, and soon you will do it.’ The whole idea of ‘you are learning’ is very active; it implies continuance.” Similarly, P3 stated, “Yet! Keep trying; you can do it.” In addition, P1 stated the following:

I tell them, yes you can. You can do anything if you try hard and practice. I often give an example of when their baby brother couldn’t sit/crawl. He didn’t give up—just like you didn’t—and eventually, after practicing and trying again and again, he was able to, just like you. I try and give real-life examples of when they had to practice something and eventually were able to do it. It gives them the confidence to keep going.

In this description, P3 explained the importance of not giving up and continuing to try, which is similar to Dweck’s approach to a growth mindset. In Dweck’s (2006) mindset theory, a growth mindset is being able to change or improve in one’s abilities over time, but also striving in the face of difficulty.

**Consultations and growth mindset.** Consultations, also known as monthly meetings for the purpose of this study, are a fundamental part of the alternative learning environment where the study took place. During these consultations, parents and teachers collaborate and communicate about how learning is going for the student in respective learning environments at home and at school. I asked the participants about the benefits of collaborating with a teacher and parent. Teacher participants explained that when they have the opportunity to work alongside one another, they can collaborate and share ideas. T1 explained that one benefit of collaborating is “the unified message from both school and home,” and by having this unified message, one “can give the students the same message after collaborating during consultations.” Similarly, T3 stated, “I can share ideas with them, and we can team up to explore new avenues

for learning.” Contrastingly, when the parents were asked the same question, they discussed how collaborating with teachers allows for reassurance and the chance to be open. P1 explained that,

(Collaboration) builds my confidence to know what areas we are excelling in and also at the same time makes me feel at ease and like we are accomplishing things. The reassurance is great, and I also love knowing which areas we need to focus a little more on. It helps to know you’re not alone and to have someone cheering you on and guiding you. I don’t think I would get the most out of our learning experience if I was unable to collaborate with a teacher.

Whereas both P4 and P5 expressed how collaboration provides the opportunity for communication, P4 explained that collaboration enables one to be open and ready to learn and that “no one has all the answers.” She went on to explain that being a parent, in particular, allows for the opportunity to gain feedback to improve one’s teaching.

As stated above, having these built-in consultation times allows for the parents and teachers to touch base about each learning environment, and these conversations often revolve around academic issues. Therefore, I asked the participants what kind of conversations, if any, they have during monthly consultation about non-academic areas. The goal of this question was to determine whether any intentional conversations were occurring regarding students’ mindsets. When asked this question, all five teacher participants explained that parents often bring up family topics or issues they have. For example, T2 described how parents would often make use of consultations to discuss “personal things such as family.” Likewise, T3 explained that “Parents usually share about struggles at home.” By contrast, the parent participants differed in their responses, with a variety of answers. However, no one stated that they discussed family topics, as the teacher participants explained. P1 described conversations about how the child is



doing emotionally or about health-related problems that may arise within the classroom. P5 could not come up with anything non-academic that she had discussed. P3 stated, “I suppose everything we talk about in one way or another relates to some aspect of an academic area.”

**Professional development.** I conducted a 90-minute professional development session for both the parent and teacher participants about a growth mindset. During the session, the participants learned about Dweck’s (2006) mindset theory and were provided with definitions of a growth mindset and a fixed mindset. In addition, I introduced various research-based classroom strategies that participants could use in their elementary learning environments. After presenting definitions about mindsets and strategies, I divided the group into smaller groups, and the participants had the opportunity to collaborate and plan in relation to a growth mindset and how one would foster a growth mindset within this or another respective learning environment. At the end of the professional development session, I asked the participants to fill out a final-thoughts sheet. The final thoughts sheet included two fill-in-the-blanks statements (see Appendix C). When asked about one thing they had learned about growth mindset during the 90-minute professional development session, 9 of the 10 participants stated that they learned at least one new strategy regarding a growth mindset. P2 explained, “It is important to remember to tell kids to keep looking at problems in different ways, and we need to teach them tools they can use.” One of 10 participants explained it was review. T1 stated, “It was a review for me, but now I want to do more strategies with my class.” The participants were then asked what the best part of the professional development had been. All 10 participants explained that the best part of the professional development had been the collaboration component. T2 described that working in small groups allowed the participants to put their strengths together. Similarly, P3 stated that

“seeing other people’s strengths” allowed for effective collaboration. T1 explained that collaboration time allowed for “great team-building opportunities.”

**Postprofessional development interview.** After completing the professional development and observations, I sent out an e-mail to the five parent participants and the five teacher participants requesting a time that they would be able to meet for their postprofessional development interview. As in the case of the preprofessional development interview, I had a predetermined location on the school campus that would allow for confidentiality to hold the postprofessional development interviews. I conducted the postprofessional development interviews outside the teacher participants’ contractual hours—either before or after school, depending on their schedule. I conducted the parent participants’ postprofessional development interviews before or after school hours. I estimated it would take approximately an hour to complete the postprofessional development interview, and all 10 interviews lasted approximately 30–40 minutes. The postprofessional development interview questions are presented in Appendix A and contain established predetermined questions, based on the conceptual framework for the study, as well as the initial interview questions. The predetermined questions I asked were to provide an insight into the parent and teacher participants’ knowledge of a growth and a fixed mindset. In addition, the questions were developed to gain an understanding of how both the parent and teacher participants collaborated concerning growth mindset in the kindergarten through sixth-grade learning environments. Once I had completed all the postprofessional development interviews, I transcribed the data and uploaded it into ATLAS.ti to assist with the coding of the data.

**Mindset definition.** In order to gain an insight into the parent and teacher participants’ knowledge of growth and fixed mindsets, I asked them to define both growth and fixed mindset

according to Dweck's (2006) definition. The participants had received professional development training in the course of which these terms were defined. Consequently, all five teacher participants were able to define what a growth mindset was correctly. T4 gave the following answer: "Growth mindset is when our brains can grow, and we can learn through working hard and making mistakes; whereas, a fixed mindset is that our qualities and intelligence are static, and no amount of hard work can change it." In addition, all five parent participants were able to define growth and fixed mindsets accurately. P3 stated that, "A growth mindset is when someone believes their intelligence can evolve and change through persistence and effort; whereas a fixed mindset is when someone has the belief that the intelligence they have cannot change."

**Teaching growth mindset.** I asked the teacher and parent participants whether teaching growth mindset at an elementary level (kindergarten through sixth grade) was necessary. All five teacher participants stated that teaching growth mindset at an elementary level was important. While each teacher had his or her own beliefs as to why it was necessary, there was a commonality in that they agreed that instruction in a growth mindset was important. For example, T4 explained that a growth mindset "promotes a healthy future and endless possibility to thrive if they continuously believe in themselves, put in forethought and effort, and are not shattered by rejection or failure." Correspondingly, all five parent participants explained that it was important to foster a growth mindset at the elementary level. As in the case of the teacher participants, each parent participant explained why he or she believed that a growth mindset was essential. For example, P3 justified the importance of a growth mindset by stating the following:

The elementary levels set the foundation for a child's education. By instilling mindsets at a young age, students are adding to their tool belts when it comes to learning. They have strategies they can use when it comes to learning and problem-solving.

**Collaboration and consultations.** A system of consultation has already been established within this particular alternative learning environment, as monthly meetings are held between parent and teacher participants. During these consultations, the parents and teachers have the opportunity to touch base not only about academic areas, but also non-academic areas—for example, social, emotional, and cognitive issues. I wanted to gain an understanding of what could be achieved through collaboration between parent and teacher participants concerning a growth mindset.

I asked both parent and teacher participants about how collaborating in consultations assisted with a growth mindset. Three of the five teacher participants described how collaboration enables teachers to share the most appropriate strategies for a specific student. Two teachers explained how each participant introduces a different perspective when it comes to teaching, and that collaboration provides the opportunity to learn how other people teach or approach a situation. Three of the parents stated that consulting with teacher participants increased their own level of accountability in instilling a growth mindset in their children. Moreover, two of the parents stated that consulting provided the opportunity to make sure that teachers and parents were on the same page when it came to instruction. As a result, there was no conflicting information when it came to a growth mindset. For example, P3 stated the following:

I think that the reminder of growth mindset is helpful. It's easy for parents to get frustrated and feel like nothing is working when they are struggling with something. It helps a teacher to remind us that it's normal and that they will eventually get it if we just keep working at it with them.

Similarly, T3 pointed out the following:

Parents need to be supported through mindset conversations. They need to be encouraged and praised as they try to figure out homeschooling, because it is hard and lonely. Their students give them a hard time, and their schedules are tight. They ask themselves whether they are doing the right thing for their student. It is a lot of pressure and responsibility. They need positive encouragement and strategies for success. It is important to discuss this and to talk about how to handle various situations at home to keep things on the positive side. I hear crazy things that go on at home: crying, tantrums, and fits. Families appreciate the support.

**Theme introduction.** I found that after receiving training, the participants in this study demonstrated an increased confidence in mindsets. Their confidence increased not only because they were able to recognize their own mindsets, but also because they could recognize the mindsets of others, thus enabling them to apply the mindset principles they learned in the teacher-training programs. In that, there were 8 themes that emerged from various strands of data. Using ATLAS.ti I converged all the data gathered including the following: preprofessional development interviews, consultation observations, final thoughts sheets, and postprofessional development interviews. In doing so, the following themes emerged: persistence, mindset transferability, growth mindset language, elementary levels and foundation, collaboration and growth mindset, social-emotional, embracing challenges and self-talk, and encouragement.

**Theme 1: Persistence.** The theme of persistence emerged from the data, as well as two sub-themes, namely determination and motivation. O'Brien et al. (2015) state that when a learning environment involves fostering a growth mindset, students are able to practice persistence to help find the answers to learning problems and to solve problems. During the

preprofessional development interview, both parents and teachers explained that a lack of motivation, determination, and persistence was a barrier to student success. However, in the postprofessional development interview, T4 explained that she observed students using various different approaches when tackling a problem: “I noticed them not giving up, but continuing to persist independently and asking for guidance when needed.”

Similarly, within the observation component, I noted that in all five of the consultations that took place, either the parent or teacher participant referred to a student using persistence, determination, or an increase in motivation. For example, when discussing the academic subject of math, P1 stated, “I noticed that she did not give up like she normally does; she kept trying.” T1 stated that she noticed a similar scenario with the student, explaining that instead of just sitting doing nothing as she would normally do when she got stuck, she tried to solve the problem on her own and then raised her hand when she needed guidance.

**Theme 2: Mindset transferability.** Dweck (2006) explains that mindsets are subjective and can change when an environment is conducive to their doing so. A teacher’s or parent’s mindset plays an integral part when a student is developing his or her mindset. Bethge (2018) describes this as the transferability of a mindset, when a teacher’s or parent’s mindset (whether growth or fixed) influences his or her students. During the professional development and postprofessional development interviews, the topic of parent and teacher mindsets was discussed. During the postprofessional interviews, both the teachers and parents shared the realization of how much their mindset can affect a student’s mindset, either positively or negatively. The theme of mindset transferability or shifting teacher/parent mindsets emerged from the data. Both parent and teacher participants explained that since receiving professional development, they had noticed a shift in their mindsets. For example, T1 noticed that her mindset appears during the

testing season, and observed how it impacted her students. She described her experience as follows:

Thinking back to the testing season, I had such a negative mindset about it, and I saw my students' attitudes towards testing begin to shift. When I adjusted my own mindset, I saw some of the kiddos shift their mindsets.

Moreover, T5 described how her mindset affected students, as follows:

Yes, my mindset affects the kiddos. If you say: "Oh! I cannot draw dogs, and I am horrible at it."—they hear that and may think the same about themselves. If you say: "Oh well, I made my dog's leg too long today! Whoops! I will have to try to make the legs the same length next time."—that helps them see that we all make mistakes, no one is perfect, and next time we will try to make it a little better.

The parent participants had similar experiences when it came to mindset transferability. For example, P4 described having to give herself reminders to be both patient and flexible:

If I remind myself that I have to be patient and flexible, our school work goes well. If I rush him and I am grumpy, we have a bad day. I have to be aware of my mindset and aware of how he picks up on it.

**Theme 3: Growth mindset language.** The next theme that emerged was growth mindset language. Participants discovered a change in their language when directing speech to students, and came to the realization that the language one uses can affect a student's mindset. For example, T5 stated, "I realize I'm guilty of not encouraging mindset all the time. You can definitely tell the difference in the attitude of my students when I do." Whereas T2 stated:

It is hard to remember to use a growth mindset in my lessons, but after receiving professional development, I want to make sure to try to do it. I guess I needed to just have

a growth mindset about implementing growth mindset language. Using a language tracking sheet was helpful to see what kind of language I was using when directing students.

Parent participants stated that growth mindset language was imperative. For example, P3 described how the use of growth mindset language helped their child's self-esteem, and that it demonstrated that "you in believe in them."

**Theme 4: Elementary levels and foundation.** Dweck (2006) points out that children as young as 4-years old begin to exhibit signs of growth and fixed mindsets, and that at this early age a student starts to become trained into a certain mindset, based on the learning environment. During the professional development session, I explained the importance of the implementation of a growth mindset in elementary levels rather than just in the older grades, because it sets a foundation. In the postprofessional development interview, all five parent participants and all five teacher participants identified the importance of starting a growth mindset at the elementary level. For example, T1 stated the following:

Everything is new and therefore difficult at this age. They need to understand that there are many ways to solve a problem, and being encouraging is important, or a teacher runs the risk of a student losing interest in learning.

Moreover, P4 explained that, "The elementary levels set the foundation for a child's education. By instilling mindsets at a young age, students are adding to their tool belts when it comes to learning. They have strategies they can use." Similarly, P5 noted, "It's important for children of any level, but elementary level especially, because kids at this level are more like a sponge and you are setting the foundation. Their minds are more open to accepting something new."



**Theme 5: Collaboration and growth mindset.** Carlson (2018) describes the importance of collaboration between parents and educators when it comes to a growth mindset and that it needs to be a combined effort. Collaboration is a theme that emerged within the study. All 10 participants brought up the importance of collaborating in their postprofessional development interview. For example, T4 stated the following:

Collaborating with parents about mindsets is huge. I only have kids for six hours a week, and I can talk about growth mindset all day, but if it is not being supported at home for the remaining 21.75 academic hours of their life, not to mention day-to-day, I am fighting an uphill battle. Students carry so much baggage, and they really need everyone playing on the same team for success.

Similarly, T5 stated, “It is extremely helpful to collaborate on growth mindset, because it allows for the parent and teacher to see what strategies may or may not work, and that way they can better meet each student’s needs.” Parent participants also explained the importance of collaboration when it came to a growth mindset. For example, P2 pointed out the following:

Being on the same page helps everyone—the parent, teacher, and student. That way, there is no conflicting information being passed down to the child during the instruction time. Also, it allows for everyone to be on the same page when it comes to teaching.

Whereas P3 stated, “Having a teacher go over growth mindset during consultations will help make it easier to implement throughout the month with what I am teaching at home.”

**Theme 6: Social-Emotional.** I found that when asked about nonacademic conversations in the preprofessional development interview, all five teacher participants stated that the conversations they have include family topics or issues. By contrast, 4 of the 5 teacher participants described scheduling related topics. However, a common theme that arose during the

consultation in the postprofessional development interviews was the focus on the social-emotional development of students and how that relates to a growth mindset. For example, T2 explained as follows:

I think it is such an important concept to talk about in consultations. I think oftentimes we focus on the academics, rather than the social, emotional development of the students. By implementing growth mindset conversations, we can see where students are struggling and what tools we can help instill in them.

Similarly, T4 described the importance of identifying social-emotional cues when it came to teaching students:

When I see struggling students, and I hear a comment such as: I cannot do this, I pause, I try to get down to eye level with them and have a conversation. There are a multitude of reasons this could be happening, and I need first to determine if it is social-emotional. Do I need to help this student on an emotional level to get to a place where they can work? I want students to feel confidence at the end of the day.

In addition, P5 explained as follows:

Learning is not only a focus on the academics, but it is looking at the whole child. After introducing growth mindset strategies at home, I saw how these strategies affect my child's social-emotional development as well as the academics, and I truly saw a change.

By looking at the whole child, both teachers and parents noticed how the social-emotional and growth mindset coincide with one another. For example, P3 described that instilling a growth mindset promoted "positive thinking, high self-esteem, and a greater drive in learning."

**Theme 7: Embrace challenges and self-talk.** One of the foundations of a growth mindset is to continue to try something even if it is a challenge. Throughout the professional

development session, I explained to the participants that it is imperative to help students understand that when an individual makes a mistake, or an individual has difficulty solving a problem, it is the process of working one's way through the problem that helps one learn a concept. Thus, the theme that emerged was that of embracing challenges. During the observations, both parent and teacher participants stated that they had observed their students embracing challenges and enjoying the challenges. For example, P3 described an occasion when her daughter was working on a problem, and she noticed that the child was engaging in self-talk. She explained that she silently watched her daughter embrace a challenge by using positive talk to determine how to solve the issue.

Similarly, during the consultations, P1 explained that before she had implemented growth mindset strategies from the professional development training, her daughter would often make comments about herself, saying that she was "stupid." Once the parent started to foster a growth mindset to talk to her at-home teacher, she noticed a shift in her child's comments. Instead of saying that she was "stupid" she would say, "I do not know this yet." In the postprofessional development interview, P5 stated that she observed a shift in her child's mindset since introducing growth mindset strategies. She explained that her daughter has a "positive attitude when it comes to schoolwork and everyday life" and that her daughter "even tells her 'mom, it is OK if I cannot yet, as I tried.'" Similarly, T4 stated, "I have seen my students keep trying even when thinking in a fixed mindset and come through it, saying things like 'I did it! I kept trying, and now I can do it; I did not give up.'"

**Theme 8: Encouragement.** Dweck (2006) points out that a growth mindset needs to be encouraged by both parent and teacher, and that with this encouragement, a child may have the opportunity to succeed when faced with a difficult task. Encouragement was a theme that

emerged during the study. It emerged not only with regard to encouraging a growth mindset in children, but also when it came to the encouragement of parents by teacher participants. Both parent and teacher participants referred to the importance of using encouragement. For example, T4 stated the following:

I will encourage my students and my own children to work hard and see that their effort will help them to learn everything. I love reminding kids that the more they work the easier it will get and the better they'll get at it. The wording and thought behind growth mindset is [*sic*] really awesome, I feel like it helps explain why it gets easier the more they work at it.

Similarly, P2 explained, "They (students) need to understand there are many ways to solve a problem and be encouraged continuously or risk losing interest in learning." Moreover, P1 described how they started with using external rewards for hard work, but that after starting to use a growth mindset she realized that "positive words can be even more encouraging."

In addition, during the postprofessional development interview both parent and teacher participants noted the importance of encouraging parents. For example, T5 stated, "We discuss what struggles the student may be having and I encourage the parent to have a positive outlook on approaching the struggles." Similarly, T1 stated, "Encouraging parents to think in this new way will filter on down to their child as they homeschool them." In addition, P4 stated the following:

I think everyone's main goal is growth and positive outcomes and growth mindset sets; you are up for that. Everyone fails, but when you are encouraged to keep going and keep pushing, everyone pushes harder to do their best. I think parents need these tools and to be reminded, because we often forget or sometimes are overwhelmed and focus on what

the struggle is. To learn how other people approach this and gain new perspectives and ideas is always helpful.

#### **Chapter 4 Summary**

In this chapter, I have presented the data analysis and the findings on how parents and teachers increase home-to-school collaboration to foster a growth mindset in elementary-age children in their respective learning environments. Data were collected through preprofessional development interviews, professional development, observations of monthly consultations between parent and teacher participants, and postprofessional development interviews. The five parent participants and five teacher participants participated in professional development to gain a piece of background knowledge on Dweck's (2006) mindset theory. By participating in such professional development, I provided both sets of participants with knowledge on how to foster growth mindset strategies in their respective learning environments, and an opportunity to collaborate and plan with one another. As a result of professional development, the participants began to notice the importance of collaboration and planning with regard to instilling a growth mindset in students.

As both teacher and parent participants began to foster growth mindset strategies in their respective learning environments, they began to notice a shift in student motivation and persistence when approaching learning problems. Both sets of participants noted that students began to persist in the face of a challenge rather than shy away from it. Moreover, they became aware of the importance of self-talk when it came to facing challenges. In addition, the participants observed that collaboration helped create an intentional learning environment in which both parents and teachers can collaborate with one another. This collaboration provided the opportunity for parent and teacher participants to examine their own mindsets and how they

could transfer these to their students. The participants also noted that there seemed to be a correlation between a growth mindset and social-emotional learning, and that they go hand in hand. In the postprofessional development interview, T3 stated that, “social-emotional learning and growth mindset coexist” and that, “one needs both to teach growth mindset effectively.” Chapter 5 examines the findings of this study, and presents implications and recommendations for future research.

## **Chapter 5: Discussion and Conclusion**

### **Introduction**

In this study, growth mindset and collaboration among parents and teachers were studied in an alternative learning environment to determine whether and how these two separate sets of educators came together when it came to teaching growth mindset. Current research (Bethge, 2018; Cant, 2017; Enriquez et al., 2017; Kim, 2015; O'Brien et al., 2015; Saia, 2016; Seaton, 2017; Seibel, 2016) suggests that there is a high correlation between growth mindset in a learning environment and the educator who is fostering growth mindset. Still, there has been inadequate research on whether and how parents and teachers who participate in an alternative learning environment foster a growth mindset in their respective learning environments. The uniqueness of the setting—that is, an alternative learning environment—this gap in the literature resulted in the need for this dissertation. The gap is also due to the fact that I not only worked with teachers and parents fostering a growth mindset, but also examined how these two groups of participants collaborated and fostered regarding a growth mindset. This gap in the research allowed me to ask relevant questions concerning a growth mindset and collaboration between parents and teachers.

The purpose of this case study was to acquire information from five kindergarten through sixth-grade teachers and five parents, collaborating with one another in an alternative learning environment setting to see whether and how they foster growth mindset strategies within their respective learning environments. Data collection methods for this study included preprofessional development interviews with both teacher and parent participants, observations of monthly consultations between parent and teacher participants, and postprofessional development interviews of all the participants, and a final thoughts sheet from the professional

development. The purpose of Chapter 5 is to report the findings of the study researcher and to examine how these findings relate to the growth mindset literature. The research questions are also addressed in relation to the data collected and the analysis process. The chapter includes a summary of the results, a discussion of the results, a discussion of the results in relation to the literature, limitations of the study, implications of the results for practice, recommendations for further research, and a conclusion.

### **Summary of the Results**

I conducted a case study in an alternative learning environment in the United States Pacific Northwest. This particular school serves kindergarten through high school students and has an established parent partnership component where parents and teachers meet on a monthly basis to discuss academic growth. There was a total of 10 participants—five teachers and five parents who worked with kindergarten through sixth-grade students. In order to participate in the voluntary study, parent participants had to be working alongside a teacher participant and take part in monthly consultations. Qualitative data were collected using preprofessional development interviews, observations, and postprofessional development interviews. The research questions were as follows:

**Research question 1.** How do teachers of elementary students in an inquiry-based alternative learning environment foster and increase home-to-school collaboration with parents to foster growth mindset concepts in the children?

**Research question 2.** How do parents of elementary students in an inquiry-based alternative learning environment foster a growth mindset of effort and practice to their children while homeschooling?



**Research question 3.** How do parents and teachers of elementary students collaborate with one another monthly in consultations in regard to fostering a growth mindset in their respective learning environments?

I used Dweck's (2006) mindset theory as the conceptual framework and then the data were collected and coded by the researcher. Dweck's (2006) mindset theory is the concept of mindsets and how these mindsets we obtain can help us interpret and approach the world around us (Dweck, 2010). Dweck (2010) subcategorized mindsets into two categories: a fixed mindset and a growth mindset. While Dweck (2010) explains that we all demonstrate different mindsets in different scenarios, it is imperative to foster a growth mindset within learning environments. A growth mindset is a belief that one's abilities or skills can be changed or improved with time. Therefore, Dweck's (2006) theory of mindset was used as the conceptual framework, where I was able to analyze the data based on the framework to discover various themes. After analyzing the data, eight themes emerged from the data: persistence, mindset transferability, growth mindset language, elementary levels and foundation, collaboration and growth mindset, social-emotional issues, embracing challenges and self-talk, and encouragement. The data were then analyzed based on the conceptual framework and using the three research questions. The analysis of the data provided a deeper understanding of a growth mindset and of what fostering a growth mindset in these different learning environments looks like with both parents and teachers collaborating with one another.

In the course of the study, I conducted a preprofessional development interview with the participants to gain an understanding of the parents' and teachers' perspectives when it came to a growth mindset. During the preprofessional development interview, all five teacher participants were able to define a growth mindset. By contrast, three of the five parents were able to define a

growth mindset. On the other hand, both participants struggled with defining what a fixed mindset was; the interview demonstrated that three of the five teachers were able to define a fixed mindset, and two out of five parents. By gaining a baseline of where the participants started, I was able to effectively plan professional development to meet their needs, based on their prior knowledge. In addition to gaining data about the participants' knowledge of a growth mindset, I also asked them about their collaboration during monthly consultations. The goal of these questions was to determine what type of conversations parents and teachers were having during monthly consultations outside the academic conversations. Interestingly enough, all the teacher participants explained that family topics or issues often arise during monthly consultations. However, while parent participants varied in their responses, but there were no parent participants who stated that they discuss family topics or issues.

After receiving the professional development, the participants had time to foster growth mindset strategies they learned from the professional development. After implementation, I conducted a postprofessional development interview. During this post-interview, I asked the participants to define growth and a fixed mindset to establish whether they had acquired knowledge of these terms, or whether their definition had changed from the preprofessional development interviews. I found that both parent and teacher participants were able to define growth and a fixed mindset correctly. In their definitions, they used phrases and words they had learned from the professional development, which aligned with Dweck's (2006) definitions of growth and fixed mindsets. Moreover, during the post-interview, I asked the participants about the collaboration and conversation they had during their monthly consultations. I found that during monthly consultations, conversations regarding a growth mindset would occur naturally without prompts. In addition, I found that parents and teachers felt that including growth mindset

conversations in the consultations was effective. They explained that by including these conversations they were able to hold each other accountable, share resources or strategies, and provide continuity between the classroom and home setting.

Most of the previous literature (Bethge, 2018; Cant, 2017; Enriquez et al., 2017; Kim, 2015; O'Brien et al., 2015; Saia, 2016; Seaton, 2017; Seibel, 2016) addressed fostering growth mindset within various classroom settings or focusing on academic achievement. However, the gap in the literature that presented itself related to the setting outside the classroom, in particular, the at-home setting. Additionally, there was a lack of research that focused on parents and teachers collaborating regarding a growth mindset and how they are fostering it in different learning environments. Carlson (2018) was one study that corresponded with parents and teachers collaborating about growth mindset. However, there has not been any specific study that examines two learning environments (home and school) and focuses on the parents and teachers collaborating within monthly meetings in regard to a growth mindset.

This case study may prove to be significant for a variety of stakeholders, including parents, educators, administrators, or even districts. The information obtained from this case study will provide insight and assistance in fostering a growth mindset in elementary levels not only within the classroom but also at home. In addition, this research may provide parents and teachers the opportunity to participate in active discourse to bridge the gap between home and school and allow for an environment where collaboration can occur; collaboration not only about academic endeavors but also non-academic issues, including a growth mindset.

## **Discussion of the Results**

The purpose of this section is to discuss the results as they relate to the conceptual framework. Dweck (2006) is used as a lens to understand a growth mindset and the importance

of implementation in elementary level learning environments. The results from this case study relate to whether and how teachers and parents collaborated with one another regarding a growth mindset within their respective learning environments. The findings of this study reveal not only a correlation between fostering of growth mindset and student motivation and persistence when it comes to academic learning, but also the importance of receiving instruction both at home and at school. Having parents and teachers collaborate with one another provides the opportunity to cross the bridge between the two learning environments and provides alignment within the instruction, not only in academic areas.

With all of the data gathered, the results were consistent among all 10 participants in the area of implementation at an elementary level of growth mindset in the different respective learning environments. In addition, the results were consistent among both the parents and teacher participants on how collaboration among the two has an influence on fostering a growth mindset in the different learning environments. The research questions for this study were designed to examine the perceptions of parents and teachers who used a growth mindset both at home and school when it came to teaching elementary students. While collaboration was already a key component in this school, within the study I proposed the idea of adjusting the monthly meetings to include intentional growth mindset conversations.

Prior to this study, teachers and parents would participate in monthly consultations that occurred to meet state requirements to discuss progress for a student's learning. These conversations revolved around state standards and various academic subjects to meet the state's requirements. When I asked in the preprofessional development interview, whether any non-academic conversations occurred, all five teacher participants stated that parents would often bring up non-academic topics. These conversations include family or personal issues, or

struggles they are having with homeschooling. By contrast, the parent participants differed in their responses, in that they explained that some conversations would arise based on academics or activities happening within the classroom. Based on these data, I added an intentional collaboration time with professional development; this collaboration time allowed for both parent and teacher participants to work alongside one another to develop intentional plans regarding growth mindset. As a result of having this intentional time, parents and teachers began to have active discourse in relation to a growth mindset in teaching. By providing this time, I was intentionally setting the stage for when the two groups of participants would collaborate during their monthly consultations.

After receiving professional development, the parents and teachers had the opportunity to foster what they had learned in their respective learning environments. After having the opportunity to foster growth mindset strategies, they were set to meet during their standard scheduled consultation time. During the consultations, the teacher participant and the parent participant went about their regular meeting fulfilling state requirements, but conversations regarding a growth mindset began to emerge. Both groups of participants began to share their successes or failures regarding the implementation of a growth mindset. Again, having interactive discourse assisted in leading to collaboration and problem-solving when it came to teaching within their respective learning environments.

When conducting the postprofessional development interview, I asked the same question about conversations that occur in consultations, and the answers differed significantly from those given in the preprofessional development interview. I identified that a theme emerged from the data that demonstrated the importance of collaboration about growth mindset within the monthly consultations. All 10 participants brought up the importance of collaboration when it came to a

growth mindset. Both parent and teacher participants mentioned that having this built-in time enabled them to identify what is working and what needs improvement and gave them the opportunity to not only improve their practice when it came to implementation but also to examine how their mindsets could be affecting a student.

I identified mindset transferability (Bethge, 2018) as another theme within this study. Mindset transferability, as defined by Bethge (2018), occurs when the mindset of the adult, whether parent or teacher, influences a students' mindset. During the preprofessional development interview, the participants had little understanding of how one's own mindset can transfer to someone else. However, after receiving the professional development and gaining an understanding of how mindsets can be transferred, the participants shared the realization of the significant part that their own mindsets play in teaching. They noted that after receiving professional development and gaining knowledge about growth and fixed mindset, they began to be more perceptive to their own mindsets and noted changes in their students' mindsets. Throughout the study, I observed conversations about participants' own mindsets arise during the monthly meetings, but also how the participants became more perceptive about the language they used when teaching. The participants noted that a growth mindset is imperative when it comes to learning, because it helps with a child's self-esteem and demonstrating how a growth mindset can have a positive impact on social-emotional learning. By noting the importance of language, the theme of social-emotional issues arose within the study. Participants noted how growth mindset and social-emotional development coincide with another, because they examine the child as a whole; not just the academic issues.

When teachers or parents look beyond academic questions, they start looking at how students embrace challenges, demonstrate persistence, and use self-talk to help accomplish a task

or solve a problem. The various research questions tried to provide an understanding of how the participants were able to collaborate with one another and foster a growth mindset within their students. While I introduced strategies within the professional development session, it did not become apparent until the postprofessional development interview that the participants had gained an understanding and discovered the effectiveness of these strategies. According to the results of the data, the conclusion can be drawn that there was a positive perception of growth mindset strategies within both learning environments. Moreover, there was an appreciation of the impact of the implementation of a growth mindset on persistence and embracing challenges. In addition, the data demonstrate that self-talk was an integral part when embracing challenges and trying to persist in those challenges.

**Themes.** The eight themes that emerged are presented in Table 1. Each of these themes coincides with another and supports the literature and research that has been conducted about a growth mindset. The results of the study supported past and previous research in regard to a growth mindset, but expanded on the idea of utilizing a growth mindset within two different learning environments (at home and within the classroom). The themes were discovered to support the implementation of a growth mindset within the elementary level because they create the foundation for future learning. By introducing a growth mindset at a young age, students gain an earlier exposure to growth mindset strategies and have more time to practice these skills. In addition, by introducing a growth mindset now, both the teachers and the parents are focusing on the whole child, including social-emotional development. The study results demonstrated that collaboration between home and school allows for parents and teachers to have a unified message in their teaching in regard to a growth mindset.

***Persistence.*** Both parents and teachers noticed that students had an increase of persistence, used positive self-talk, and embraced challenges after implementation of a growth mindset. A growth mindset is a belief that through practice, one will be able to get better at a particular activity over time. Thus, persistence is fundamental when it comes to a growth mindset. The results indicate that there was an increase in persistence among the children when approaching a difficult task. Moreover, in addition to displaying persistence, the children began to use positive self-talk when approaching these challenging tasks.

***Mindset transferability.*** The study results indicated that participants noted several changes not only in their approach to fostering a growth mindset, but also in how the children approached learning. After receiving the professional development, some of the parent and teacher participants noticed a shift in their own mindsets and realized how mindset transferability can play a prominent role when it comes to teaching various academic subjects. They discovered that after the professional development, they were more in tune with their own mindsets and acknowledged that if they have a fixed mindset about learning something, they would often notice their child or student demonstrating a fixed mindset. T3 explained as follows:

If I come into class and we have to complete testing or a survey and I go on and on about how stupid it is, the results will be terrible, because I just gave students a reason not to care. If I come in and explain the why of something and how we will use the data, students can make their own decisions, because have an understanding of why they are doing it. I try to bring a positive attitude to class and my passion for my content area.

***Growth mindset language.*** In addition to mindset transferability, parents noted how their language coincides with their mindset when approaching learning. Participants explained how using a growth mindset language had an impact on the children's attitude when it came to



learning. They explained that by fostering a growth mindset, they noticed that their language was focused on the process of what the children were learning rather than on the product or their intelligence. In doing so, participants noted that students began to approach their learning differently after implementation.

***Elementary levels and foundation.*** After implementation within the kindergarten and sixth-grade learning environments, both parents and teachers explained how imperative a growth mindset is at the elementary level. Participants explained that during the early stages of life, students are continually learning new concepts and being challenged in new ways. By fostering a growth mindset in elementary students, the students are learning about their own mindsets and different strategies to address problems. P4 explained that by starting at a young age, “students will be more prepared when they learn about growth mindset in the older grades.” The elementary levels set the foundation for future learning, not only in academics but also when it comes to a growth mindset.

***Collaboration and growth mindset.*** By participating in active discourse during consultations, participants found that the collaboration between the two of them began to increase when it came to nonacademic areas. Moreover, they realized that the nonacademic conversations, like a growth mindset, would often relate to the academic subject areas; thus demonstrating how a growth mindset plays an integral part in the monthly consultations. In addition, by participating in active discourse, the parents and teachers found that sharing strategies for implementation helped improve their practice when it came to their teaching. By sharing strategies, students received a unified message with regard to a growth mindset.

***Social-Emotional issues.*** Alongside growth mindset language and encouragement, parent and teacher participants noted how social-emotional learning corresponds with a growth mindset.

The participants explained that after fostering a growth mindset within their respective learning environments, they realized how important it was to consider the whole child when it came to teaching. This was especially true for conversations in regard to consultations. Before receiving professional development, consultations often revolved around academic topics, with very few conversations relating to topics outside the academic field. Participants noticed that after receiving professional development, intentional conversations began to arise about a growth mindset, which in turn developed into conversations about growth mindset.

***Embracing challenges and self-talk.*** By demonstrating persistence and positive self-talk, the parent and teacher participants suggested that students began to embrace challenges rather than shy away from them. However, to embrace these challenges, children need encouragement from both parents and teachers. When receiving encouragement from both the teacher and the parent, students have the opportunity to succeed, even when approaching a difficult task.

***Encouragement.*** However, encouragement does not only happen from adult to student but also from adult to adult. During the observations, I noted several instances when both teacher and parent participants were collaborating with one another concerning a growth mindset, and found the participants encouraging one another. They used what they had learned from the professional development regarding growth mindset language and encouraged one another during consultations when they were trying to solve a problem. With this encouragement, the participants found that they began to bring up more problems when it came to teaching in their respective learning environments. In doing so, parents and teachers can solve problems together and participate in active discourse.

## **Discussion of the Results in Relation to the Literature**

**Persistence.** When fostering a growth mindset with students, students have the opportunity to learn the idea of persistence when it comes to problem-solving. This persistence provides students the opportunity to deal with frustration and failure in an academic setting but still tackle various academic problems (Smith, 2017; O'Brien et al., 2015). By not giving up when faced with these problems, students begin to see a boost in their motivation when facing challenges. This motivation assists the students to follow through in their learning goals and see the importance of effort and hard work (Cant, 2017). Bethge (2018) explains that when students demonstrate hard work and effort, they are gaining an understanding of how persistence can help with gaining a deeper understanding of their learning.

Various researchers (Cant, 2017; Bethge, 2018; Smith, 2017) explained the idea of students being self-motivated by putting forth effort or developing grit. This is similar to what I found in the present study with the theme of persistence. Participants noted that prior to foster growth mindset into their learning environments that there was a lack of wanting to continue when faced with a challenge or problem-solving. Throughout the study both teachers and parents noticed that after they fostered growth mindset within their respective learning environments, that students demonstrated an increase in persistence when it came to their academic work.

**Mindset transferability.** Both parents and teachers play an integral part when it comes to developing a child's mindset. Dweck (2006) explains that children as young as four begin to exhibit fixed or growth mindsets. These mindsets that children acquire can be subjective, which means that a mindset can be changed if the environment they are in is conducive to such change. To have an environment that is suited to a growth mindset, teachers or parents need to be cognizant of their own mindsets. Seaton (2018) researched the impact of teachers' mindsets and

explained that if teachers receive the proper training in a growth mindset, they are better equipped to identify mindsets within their respective learning environment. I found that after participant teachers received training about growth mindset, they saw that the participants' confidence in identifying mindsets increase. In particular, I discovered that they were able to identify mindsets not only in their students but within themselves. Seaton (2018) states that teachers' mindsets lay the foundation for fostering a growth mindset within a learning environment.

Similarly, Bethge (2018) put forward the notion of mindset misunderstandings when it came to the implementation of the growth mindset; explaining that if teachers do not understand growth mindset, then they may not have a solid understanding of how a growth mindset may translate into either the classroom or the instructional process. If and when this happens, the teacher may struggle with using a growth mindset within his or her classroom. Moreover, Bethge (2018) describes that if teachers are not aware of their own mindset, they can transfer their mindset onto their students, which is known as mindset transferability. She found that teachers view intelligence as a personal characteristic that has the potential to grow when nourished; however, that potential can be diminished based on one's own personal mindset.

This is similar to what I found in this study, in that both parents and teachers realized the important part of their own mindsets play when it comes to teaching concepts. Several parents and teachers noted that they were unaware of their own mindsets within teaching, but that they became more conscious of these mindsets after the professional development. Furthermore, they described how, after receiving the professional development and starting teaching, they realized that their mindsets had either a negative or positive impact on their students. If the parent or

teacher had a fixed mindset about a concept, the students would also have such a fixed mindset. By contrast, if a parent or teacher was excited and had a growth mindset, so did the students.

**Growth mindset language.** Enriquez et al. (2017) point out that if a teacher uses purposeful planning when it comes to growth mindset language, students will then have the opportunity to question their environment and to learn that individuals can change and grow. Enriquez explained that language from instructional tools, such as children's literature or a teacher's language, helps students learn how to deal with challenges. In doing so, the teacher is taking advantage of the teachable moments that present themselves to promote active discourse and dialogic conversation. Together with Enriquez et al. (2017), Seaton (2018) rationalized the importance of teachers receiving training in a growth mindset, because it gives teachers the confidence when fostering growth mindset within their classroom. Moreover, by receiving training in a growth mindset, the participants in Seaton's (2018) study noticed a change in their language when it came to feedback for students and how that can affect a student's mindset. Similarly, in this study the participants noted a change in their language when they were directing their speech to students. The participants noticed how the language they use can affect a student's mindset.

**Elementary levels and foundation.** While there have been many studies that explain the effectiveness of growth mindset, there has only been a small number of studies that have actually focused in on the elementary levels (Cant, 2017, Enriquez, 2017, Kim, 2015; O'Brien et al., 2015, & Smith, 2017). However, within this study I found that elementary levels set the foundation for future learning. In that, the participants within the present study explained that by introducing growth mindset at a young age they have the opportunity to learn about the different

ways of problem-solving. However, these opportunities must be created by the educators that have interactions with students, which include both parents and teachers.

To create these opportunities, Kim (2015) explains that starting in the younger grades like third through fifth grade, teachers should use open-ended questions because it gives students the opportunity to practice appraising both his or her own reasoning as well as others. In doing so, students are practicing the idea of growth mindset while the teacher is foster a growth mindset through discourse. Similarly, Bethge (2018), explained that with the shift towards Common Core State Standards in the younger grades, that students are needing to use higher-order thinking which focuses on the problem-solving so that they can get a deeper understanding of what they are learning. However, this idea of growth mindset needs to be a culture established throughout the whole school to show there is a common vision at the school (Hanson et al., 2016). By having a common vision throughout a school one is setting the foundation to be inclusive to all grade levels.

**Collaboration and growth mindset.** One of the critical components of this study was collaboration between parent and teacher participants regarding the implementation of a growth mindset. This collaboration occurred during monthly consultations, where the participants were able to take part in active discourse about a growth mindset and how to foster such a mindset within their respective learning environments. In her (2018) exploratory case study, Carlson points out that home-school collaboration creates a positive impact on academic outcomes for children. She identified that with the involvement of both parents and teachers, there was a high-level of exposure when it came to a growth mindset. Correspondingly, Elish-Piper (2014) explains that parental messages could have an impact on mindsets, pointing out that when parents and teachers collaborate, they can help develop a growth mindset in students. By having

this collaboration, both parents and teachers learn how to model, foster, and reinforce growth mindset in their respective learning environments.

These studies coincide with the importance of collaboration between parents and teachers regarding a growth mindset. The aim of this research was to gain knowledge about how parents and teachers bridge the connection between the two different learning environments and how they can collaborate. I found that all the participants brought up the importance of collaboration in relation not only to academic issues but also to nonacademic areas, including a growth mindset. The participants found that having these conversations in the monthly consultations made them more prepared when it came to teaching at home, because they had the opportunity to discuss different aspects of learning with one another. While observing the consultations I noticed that the conversations about growth mindset occurred naturally during the course of the consultations. The teacher would review each academic subject area and then follow up on the conversation about a particular subject with a conversation about a growth mindset regarding the subject. In addition, teacher and parent participants explained that it held one another accountable when it came to implementation.

**Social-Emotional.** While growth mindset has a correlation with motivation and academics it also looks the whole child. One of the themes that emerged from this study was that learning is not just academics, but rather looking at the whole child and how they develop in the aspect of social-emotional. Social-emotional is looking at the students thinking or drive for learning. While this theme is similar to persistence and embracing challenges the theme of social-emotional focuses on how people can change and grow. Enriquez et al., (2017) explains that a growth mindset environment is not only looking at the academics but rather providing the opportunity for students to understand different perspectives, ask questions, and see how one can

develop a higher level of thinking. In doing so, students become equipped to challenge their minds and change their thinking and how to deal with failure.

**Embracing challenges and self-talk.** A growth mindset requires an individual to embrace challenges when dealing with a problem. If one merely gives up when something gets difficult, then one is demonstrating a fixed mindset. Therefore, embracing challenges is one of the foundations of a growth mindset. Smith (2017) points out that when an educator demonstrates that learning can result from their mistakes, students have the opportunity to go through the growth mindset process. Moreover, Smith (2017) found that when educators focus on grit or mindsets, students are more successful when it comes to academic subjects, because they know how to learn from their mistakes and foster a growth mindset. Similarly, Cant (2017) describes how an educator plays an essential role in fostering a growth mindset, because it allows students to take ownership of their learning and have self-motivation.

The notion of taking ownership of one's learning is a common theme in the literature. Like Cant (2017), Saia (2016) explains the importance of the students' taking ownership of their learning. Saia researched a group of first-graders adopting a growth mindset in the subject area of literacy, and discovered (Saia, 2016) discovered that students tend to rely on others to determine their success when it comes to learning. She explained that by emphasizing a growth mindset, one could promote positive life-long learning habits that students can use throughout their education.

Throughout this study, including during both the observations and postprofessional development interview, the parents and teacher participants noted that students were using self-talk to take charge of their learning. Dweck (2006) explains as follows:



If parents want to give their children a gift, the best thing they can do is to teach their children to love challenges, be intrigued by mistakes, enjoy effort, and keep on learning. That way, their children don't have to be slaves of praise. They will have a lifelong way to build and repair their own confidence.

During the preprofessional development interview, parent participants explained how they would often offer a reward, such as candy or a toy, in order to get tasks accomplished. However, they noticed that after fostering a growth mindset, students were self-motivated by their challenges and wanted to keep trying until they arrived at the answer.

**Encouragement.** Praise and encouragement are similar because these concepts are looking at the idea of honoring the learning process. When one honors the learning process teachers or parents are encouraging students to take ownership of their learning (Cant, 2017; Saia, 2016). Within this study, another theme that emerged was encouragement for both the students and parents. What I found was that both parents and students needed the encouragement for the use of growth mindset. This is similar to Dweck (2014), Dweck explained that there needs to be a focus on the effort and the progress made thus far. In doing so, parents exhibited fostering a growth mindset and students exhibiting growth mindset.

## **Limitations**

Several limitations presented themselves in this case study. I conducted the study in one alternative learning environment in the United States Pacific Northwest. Convenience sampling was used, which generated a sample size of five teachers and five parent participants. Using a small sample size poses a challenge in generalizing the results of the study to a more significant population. The duration of the study was 12 weeks, which included preprofessional development interviews, observations, and postprofessional development interviews. The fact

that it was not a lengthy study made it difficult to gain a full understanding of what fostering a growth mindset within an elementary study looks like and how parents and teachers collaborate.

Another limitation was that this study took place at the end of the school year.

Conducting it at the end of the school year meant that students, parents, and teachers were already established in their routines, and with fostering a growth mindset, participants were adding another element to their teaching or learning. Similarly, another limitation is that students' mindsets can be influenced by many different factors, including classmates and authoritative figures.

### **Implications of the Results for Practice, Policy, and Theory**

The conceptual framework for this study was Dweck's (2006) mindset theory. I chose this specific theory because of the relation to both the topic of this study and previous research about growth mindset. Both the interview questions and the professional development were developed with the conceptual framework in mind. This case study explored how both parents and teachers in an alternative learning environment collaborated with one another concerning the implementation of a growth mindset. The findings of this study can influence both practice and policy; the implications of the results are described below.

#### **Implication for practice.**

**Teachers.** For teachers to be able to foster growth mindset strategies within their learning environment effectively, they must understand what both growth and fixed mindset mean in relation to a classroom. Moreover, teachers need to be able to identify their own mindsets due to the notion of mindset transferability (Bethge, 2018). Once teachers have the necessary knowledge of growth and fixed mindsets, they can identify or recognize when a child has a particular mindset and foster strategies to address areas where a fixed mindset may arise. In

doing so, teachers are able to adjust their learning environment to meet the needs of the students that foster a growth mindset—thus creating an environment in which one is focusing not only on the academic performance of a child but also on social-emotional needs. In addition, when an environment is established with a growth mindset in mind, children have a sense of intrinsic motivation or persistence that enables them to self-talk and embrace challenges.

***Parents.*** While schools play a prominent role in a child's life, the other prominent part of a child's life is at home. When a child is at home, his or her parent is the educator within that respective learning environment. Therefore, in order for parents to effectively foster growth mindset strategies within their learning environment, they must also understand both fixed and growth mindset in relation to teaching children at home. Having a knowledge of growth and fixed mindset enables parents to help their children embrace challenges and use self-talk and persistence when embracing challenges they may face. With such knowledge, the parents are also able to create an environment that fosters a growth mindset. When parents have the knowledge of a growth mindset, they are not only able to identify mindsets within their child, but they can also identify mindsets within themselves. Identifying one's own mindset assists in ensuring that mindset transferability does not take place. In addition, by identifying mindsets within their child, they can then foster strategies that will best fit their child's needs.

***Administrators.*** Although this study focused on the perceptions of both parents and teachers, administrators play a prominent role in fostering and fostering a growth mindset. As the researcher, I provided a 90-minute professional development session for the teachers and parents within the study. However, both the parents and teachers expressed the need for more training on growth mindset. In addition, they expressed the need for separate professional development for parents and teachers, in the light of their different learning environments. In addition, the

participants expressed the need for time to collaborate, when both teacher and parent can have intentional conversations about the implementation of a growth mindset. Administrators should provide support for teachers and parents to help them foster growth mindset practices properly within their learning environment. One way support can be offered is by providing professional development sessions and classroom models, and intentionally planning time for growth mindset and the integration of growth mindset within the monthly consultations for every grade level. In addition, administrators should include growth mindset SIP (School Improvement Plan) goals, and intentionally include a growth mindset. By having a growth mindset included in the SIP goals, they are setting a level of expectation that growth mindset needs to be fostered and implemented within the classroom. By creating such a level of expectation, they are setting the stage to create a culture where a growth mindset is fostered, which would filter its way through to teachers, staff, parents, and students.

***Students.*** Students did not participate in the study, but like administrators, students play a prominent role when it comes to fostering and fostering a growth mindset. In the study, parents and teachers noted that there was much negative self-talk from students before fostering a growth mindset. However, after implementation they noted a change in the students' self-talk when dealing with various problems. Moreover, participants expressed the importance of the implementation of growth mindsets, especially regarding positive self-talk and embracing challenges. Students may benefit from receiving lessons about the brain, mindsets, and how these aspects play an integral part of their education. As a result, they may recognize the importance of persistence and the idea of embracing a challenge, rather than not seeing any room for improvement.

**Implications for policy.** There is a potential for policies to change both at school and district levels—policies that would ensure that all teachers of all grade levels and schools foster a growth mindset. While this study focused on elementary level students, one participant pointed out that a growth mindset is “important for children of any level.” Another participant explained that fostering a growth mindset, “promotes a healthy future, with endless possibilities to thrive. If children continuously believe in themselves and put in the effort, they will not be shattered by rejection or failure.” A policy must include a way to foster pieces of training that would apply to the individual school and the demographic that the school serves.

***District accountability.*** Within this particular school district, weekly collaboration time is built into the schedule. During these collaboration times, grade levels and subject areas have the opportunity to get together to discuss academic planning and goal setting. This time could be established as a support system for teachers for the implementation of a growth mindset. Policy changes could be made to include a conversation during these collaboration times on the implementation of growth mindsets within their classrooms. Consequently, teachers could receive feedback and collaborate with one another in regard to a growth mindset.

As stated above, administrators could assist with the implementation of a growth mindset by including it in the School Improvement Plan (SIP). By having this as a SIP goal, the policy could be changed to include plans to give the school, in particular teachers and parents, assistance with the implementation of a growth mindset. In addition, for schools that struggle with meeting their growth mindset SIP goal, the district could create a team to support struggling schools with implementation. This team would meet with the struggling schools to help foster steps and hold the school accountable for the implementation.

For traditional schools in the district that do not consult with parents on a monthly basis, policy needs to change: parent–teacher conferences should be held, and materials provided to the parents. In traditional schools, parents and teachers may only meet one or more times a year to discuss a student’s progress, dependent on the school. These conversations focus on the academic subject area; however, a policy change could include conversations regarding a growth mindset and how students embrace challenges. Introducing such conversations to parents, allows for both awareness and the opportunity for implementation at home. This would entail another policy change to include the distribution of growth mindset materials to parents, so that parents can foster a growth mindset at home.

***School accountability.*** A further policy change would be to include fostering a growth mindset in the monthly consultations at the alternative learning environment. By including these monthly conversations regarding a growth mindset, the teacher is intentionally planning strategies, but also having intentional conversations with the parent. Since the parent is responsible for approximately 80% of the instruction, it is vital that parents also have this intentional conversation in regard to a growth mindset. Having these conversations as part of the monthly consultation policy, would hold teachers and parents at all levels accountable for fostering a growth mindset in their respective learning environments. Consequently, both educators (parents and teachers) would work toward the same objectives and would be better able to meet the needs of each individual student. Lastly, another policy change would be to require every parent that intends partnering and homeschooling through this alternative learning environment to take professional development courses to learn about growth mindset so that they can effectively foster growth mindset. In addition, every teacher who collaborates with the parents should also participate in professional development about growth mindset. By educating

both parents and teachers, the intentional conversations in monthly consultations can take place, because both have received training to be able to foster them within their respective learning environments.

**Implications for theory.** Dweck (2006) describes her mindset theory as a model to build a growth mindset through effort and embracing challenges. While this mindset theory is embraced within schools, there needs to be a shift, in that this theory needs to be embraced at home as well. A change to the mindset theory would be for theory to include terminology relating to all learning environments. Including the terminology of learning environments within the theory would open the theory up to other learning environments outside the classroom setting. More specifically, by including learning environments, one is including the home, thus empowering parents to foster at home. Additionally, a change in theory should include the component of collaboration between parents and teachers. By including this component, the theory would demonstrate the importance of collaboration when it comes to implementation.

### **Recommendations for Further Research**

One recommendation for future research would be to include observations of both participants in their natural consultation settings as a data collection method. Conducting formal observations of the parent and teacher participants in their natural settings would provide another data point to identify whether and what strategies were fostered in their respective learning environments. Based on the results of this study, there are several other recommendations for future research. This study was only offered to kindergarten through sixth-grade parent and teacher participants in relation to how they collaborated with one another regarding a growth mindset.

Nevertheless, this particular alternative learning environment serves students from kindergarten through high school. Based on the school dynamics, I would recommend conducting a study with parents and teachers collaborating regarding growth mindset who share students in middle or high school. It would be interesting to observe how the parents and teachers of older students address growth mindset concepts within their monthly consultations and to establish whether and how growth mindset strategies affect the way students deal with a learning problem.

In addition, this study was limited to one alternative learning environment, with a sample of 10 participants. Within this alternative learning environment, parents and teachers share the instruction and have the opportunity to meet monthly to touch base about a student's progress. That said, it is recommended that this study be replicated across several schools—in particular, alternative learning environments—with a larger sample size in order to generalize the results to a more significant population. Moreover, it is recommended that this study be replicated for traditional schools to establish whether and how traditional schools bridge the gap between home and school instruction. In both instances, I recommend replicating the study for the duration of one school year to determine the long-term effects of collaboration regarding a growth mindset.

## **Conclusion**

Chapter 5 focused on the findings of this case study, a discussion of the results as they relate to the literature, the limitations of the study, and recommendations for future research. The study was conducted over a 10-week period at one alternative learning environment school in the United States Pacific Northwest. The participants included five teachers and five parents who collaborate with one another in regard to growth mindset within their respective learning environment in kindergarten through sixth grade. Participants found the 90-minute professional



development session to be meaningful when it came to a growth mindset and teaching practices and strategies. They also found that the implementation was beneficial to their students in the form of self-talk, persistence, and embracing challenges.

Both groups of participants, parents and teachers, expressed a desire to receive further support and training regarding a growth mindset in their respective environments. In addition, they stated that they wanted the opportunity to have time to collaborate with one another not only about academic matters, but also about growth mindset and their child's social-emotional connections to learning. All participants reported that they would continue to use a growth mindset within their learning environments. Several teacher participants explained that with the new resources gained from the professional development, they would foster a growth mindset in their classroom again at the beginning of the school year. Moreover, parent participants explained that they would continue to use what they learned when it came to homeschool. They stated that they are interested in establishing whether a growth mindset will result in a change in their learning in the coming years.

The findings of the study supported both the conceptual framework and previous studies in relation to a growth mindset. The data were triangulated and coded using a preprofessional development interview, observations, and postprofessional development interview. The coding and the analysis of the data demonstrated that both parents and teachers believe that the implementation of a growth mindset at the elementary level lays the foundation for academic success. Moreover, all 10 participants believed that teacher and parent collaboration was an essential component in relation to fostering a growth mindset. Eight themes emerged from the data, including persistence, mindset transferability, growth mindset language, elementary levels and foundation, collaboration and growth mindset, social-emotional issues, embracing

challenges, self-talk, and encouragement. Prior research indicated that there was a correlation between a growth mindset and academic success. Research also indicated that if teachers receive training in a growth mindset, they are not only more cognizant of their own mindsets, but also able to identify their students' mindsets. The results of this study supported the research and literature and will assist administrators in planning professional development to support teachers and parents with fostering a growth mindset.

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## **Appendix A: Individual Preprofessional Development Interview**

1. Tell me a little about your experience as a teacher and why you chose to be in an alternative learning school.
2. Do you know what a growth mindset or fixed mindset in relation to teaching children? If so, how would you define a growth mindset and fixed mindset? If you do not know, what do you think it is? Please describe your experiences (if any) teaching growth mindset as these experiences relate to teaching a primary student.
3. How do you respond to a student saying: 'I can't do this'?
4. How do you keep a child motivated when facing difficulties in his or her learning?
5. During your monthly consultations what kind of conversations do that address learning strategies or non-academic areas? What is beneficial when it comes to collaborating with the teacher/parent?
6. Has your child/student ever given up on a challenging task? Please describe a time where your child/student gave up on a challenging task, how did you handle the situation?
7. Do you feel your personal mindset affects the way you teach to your child?
8. Have you seen your child demonstrate any when tackling a problem in academics? How about in other areas during your day?

## **Appendix B: Individual Postprofessional Development Interview**

1. After receiving professional development, how would Dweck (2006) define a growth mindset? How would she define a fixed mindset?
2. Please describe your teaching experience after the professional development, regarding growth mindset and how it pertains to an elementary student.
3. Why is it important for children at an elementary level to have a growth mindset?
4. After receiving professional development, do you use growth mindset language you learned to promote a growth mindset in your lessons? If so, please explain.
5. How do you respond to a student saying: 'I can't do this'?
9. What visual aids (if any) do you use in your learning environment to promote growth mindset?
10. How do you keep a child motivated when facing difficulties in his or her learning?
11. What growth mindset strategies did you find effective from the professional development? Did you discover any other strategies that worked in promoting a growth mindset?
12. Do you feel your personal mindset affects the way you teach to your child?
13. Have you seen your child demonstrate any growth mindset strategies when tackling a problem in academics? How about in other areas during your day?
14. Do you believe a child's mindset can change?
15. How did collaborating with one another in consultations about a growth mindset help in fostering growth mindset strategies? Do you feel growth mindset should be included in monthly consultations?

## **Appendix C: Final Thoughts Sheet**

One thing I learned from the professional development was:

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One strategy I plan to implement will be:

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Appendix D: Language Tracking Sheet

Who? (Who is Talking?)	What? (What is the context?)	Where? (Where is observation occurring)	When? (When is conversation occurring?)	Growth Mindset Strategy (if any)	Notes/Comments:

## **Appendix E: Statement of Original Work**

The Concordia University Doctorate of Education Program is a collaborative community of scholar-practitioners, who seek to transform society by pursuing ethically-informed, rigorously-researched, inquiry-based projects that benefit professional, institutional, and local educational contexts. Each member of the community affirms throughout their program of study, adherence to the principles and standards outlined in the Concordia University Academic Integrity Policy. This policy states the following:

### **Statement of academic integrity.**

As a member of the Concordia University community, I will neither engage in fraudulent or unauthorized behaviors in the presentation and completion of my work, nor will I provide unauthorized assistance to others.

### **Explanations:**

#### **What does “fraudulent” mean?**

“Fraudulent” work is any material submitted for evaluation that is falsely or improperly presented as one’s own. This includes, but is not limited to texts, graphics and other multi-media files appropriated from any source, included another individual, that are intentionally presented as all or part of a candidate’s final work without full and complete documentation.

#### **What is “unauthorized” assistance?**

“Unauthorized assistance” refers to any support candidates solicit in the completion of their work, that has not been either explicitly specified as appropriate by the instructor, or any assistance that is understood in the class context as inappropriate. This can include, but is not limited to:

- Use of unauthorized notes or another’s work during an online test
- Use of unauthorized notes or personal assistance in an online exam setting
- Inappropriate collaboration in preparation and/or completion of a project
- Unauthorized solicitation of professional resources for the completion of the work.

### Statement of Original Work (Continued)

I attest that:

1. I have read, understood, and complied with all aspects of the Concordia University–Portland Academic Integrity Policy during the development and writing of this dissertation.
2. Where information and/or materials from outside sources has been used in the production of this dissertation, all information and/or materials from outside sources has been properly referenced and all permissions required for use of the information and/or materials have been obtained, in accordance with research standards outlined in the *Publication Manual of The American Psychological Association*.

*Sarah R. Cortes*

11/07/19

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Digital Signature

Date

Sarah R. Cortes

11/07/19

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Name (Typed)

Date

## **Appendix F: Consent Form**

### **Research Study Title:**

The Collaborative Role of Parents and Teachers: Fostering a Growth Mindset in an Alternative Learning Environment

### **Principal Investigator:**

Sarah Cortes

### **Research Institution:**

Concordia University of Portland

### **Faculty Advisor:**

Dr. Barbara Weschke

### **Purpose and what you will be doing:**

The purpose of the proposed case study is to acquire information from kindergarten through sixth-grade teachers and parents collaborating with one another in an alternative learning environment setting if and how they foster growth mindset strategies within an inquiry-based environment. We expect approximately 10–12 parent volunteers and 5–6 teacher volunteers. No one will be paid to be in the study. We will begin enrollment on April 29, 2019 and end enrollment on July 1, 2019. To be in the study, you will be asked to participate in one professional development on growth mindset. In addition, participants will participate in semi-structured interviews with opened questions, observations, and submit documents or artifacts they may use to foster a growth mindset. Participants will be asked to collaborate on growth mindset with one another during their monthly consultation

### **Risks:**

There are no risks to participating in this study other than providing your information. However, we will protect your information. Any personal information you provide will be coded so it cannot be linked to you. Any name or identifying information you give will be kept securely via electronic encryption or locked inside the researcher's home office. When we or any of our investigators look at the data, none of the data will have your name or identifying information. We will only use a secret code to analyze the data. We will not identify you in any publication or report. Your information will be kept private at all times and then all study documents will be destroyed 3 years after we conclude this study.

### **Benefits:**

Information you provide will help identify common attributes and themes related to kindergarten through sixth-grade teachers' and parents' implementation of a growth mindset concepts. The outcomes of this study are expected to yield an understanding of growth mindset strategies that both primary teachers and parents can use in an alternative learning environment. Also, in the proposed research, the researcher hopes to find if and how parents and teachers can collaborate when it comes to fostering growth mindset concepts.



**Confidentiality:**

This information will not be distributed to any other agency and will be kept private and confidential. The only exception to this is if you tell us abuse or neglect that makes us seriously concerned for your immediate health and safety.

**Right to Withdraw:**

Your participation is greatly appreciated, but we acknowledge that the questions we are asking are personal in nature. You are free at any point to choose not to engage with or stop the study. You may skip any questions you do not wish to answer. This study is not required and there is no penalty for not participating. If at any time you experience a negative emotion from answering the questions, we will stop asking you questions.

**Contact Information:**

You will receive a copy of this consent form. If you have questions you can talk to or write the principal investigator, [email redacted]. If you want to talk with a participant advocate other than the investigator, you can write or call the director of our institutional review board, Dr. OraLee Branch (email [obranche@cu-portland.edu](mailto:obranche@cu-portland.edu) or call 503-493-6390).

**Your Statement of Consent:**

I have read the above information. I asked questions if I had them, and my questions were answered. I volunteer my consent for this study.

_____	_____
Participant Name	Date
_____	_____
Participant Signature	Date
_____	_____
Investigator Name	Date
_____	_____
Investigator Signature	Date



Investigator: Sarah Cortes email [redacted]  
c/o: Professor Dr. Barbara Weschke  
Concordia University—Portland  
2811 NE Holman Street  
Portland, Oregon 97221

## Appendix G: Artifacts and Visual Materials

Example: Parent Planner

**TOP 5 TASKS**

- 1) MATH LESSONS 52-72
- 2) READER #8
- 3) WRITING # 30-38
- 4) SCIENCE
  - MOON PHASES
  - CONSTELLATIONS
- 5) SOCIAL STUDIES
  - BRANCHES OF GOV.
  - VOTING

**GROWTH MINDSET**

- "CHALLENGES HELP ME GROW"
- WRITE ABOUT WHAT A CHALLENGING TIME WAS FOR YOU & HOW YOU OVERCAME IT
- FAILURE IS AN OPPORTUNITY TO GROW
  - WHEN HAVE YOU FAILED & WHAT HAVE YOU LEARNED & GAINED

**GOALS**

THIS MONTH'S

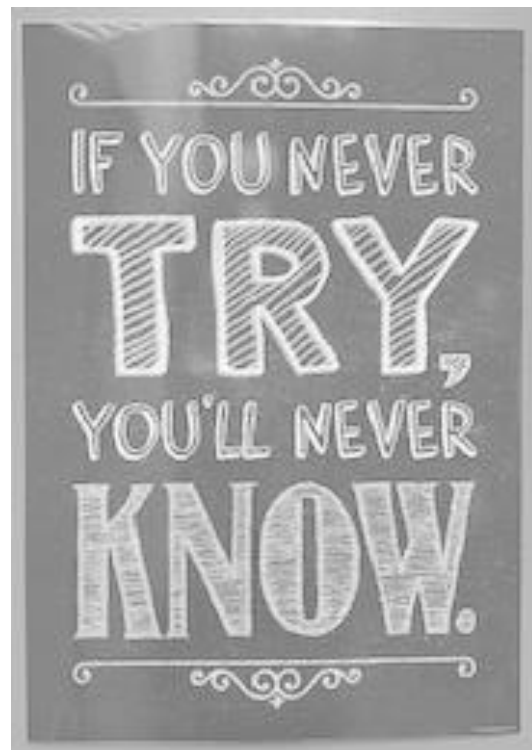
**CALENDAR**

SEPTEMBER

FEBRUARY

3 4 5  
10 11 12  
17 18 19  
24 25 26

*Example: Teacher Classroom Posters*



Example: Teacher Planner

