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STUDENT PERCEPTION ON FLEXIBLE SEATING AND THEIR ENGAGEMENT: A DESCRIPTIVE RESEARCH STUDY

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STUDENT PERCEPTION ON FLEXIBLE SEATING AND THEIR
ENGAGEMENT: A DESCRIPTIVE RESEARCH STUDY

A Dissertation
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Doctor of Education
in
Educational Leadership

by
Christina Marie Castro
December 2020

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ABSTRACT

This descriptive study examines students' perspectives of their engagement when seated in flexible seating with choice. The researcher analyzed interview and survey data to answer the following research questions: 1.) What are students' perceptions of flexible seating with choice? 2.) What are students' perceptions on their level of engagement with flexible seating with choice?

The purpose of this study was achieved by interviewing and surveying first grade students who have experienced flexible seating in their Title 1 school within Southern California. Using the data from the interviews, this study identified common themes around the perception of flexible seating among randomly selected students interviewed. Under the themes of comfort, freedom of choice, focus, movement, and feelings towards flexible seating were discussed. Using the data from the surveys, this study found that 75% of student participants perceived their level of engagement to be considered true engagement or full engagement according to Schlechty's (2011) levels of engagement, while 18.8% perceived their level to be considered strategic compliance and 6.3% perceived theirs to be retreatism.

This study provides insight into how students perceive their engagement with flexible seating. The results of this study, display that flexible seating has a positive relation to engagement and an important factor of this is student choice.

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CHAPTER ONE

INTRODUCTION

Problem Statement

Classrooms almost look the same as they did decades ago (Delzer, 2016). Fox (2017) claims traditional classroom layouts have not changed significantly since the 1800s. Students confined in these fixed classrooms are unaware of the world full of vibrant choices outside the classroom walls. Instead, they know life as it is seen behind computers or confined in a desk and chair. How can we expect our students to become problem solvers, critical thinkers, and makes choices for themselves if educators continue to solve their problems and limit the amount of choice students are given within the classroom?

According to the National Center for Education Statistics (2020), the overall dropout rate has decreased from 9.7 percent to 5.3 percent between 2006 to 2018. The improvement in dropout rate seems optimistic however, it is important that it continues to reduce. Research has shown that student engagement towards learning has been declining as students progress through school (Conner & Pope, 2013). As a result, students tend to drop out due to their lack of engagement (Walters, 2016). In addition, many more students stay in school but drop out mentally, which gradually causes them to disengage from what schools have to offer (Washor & Mojkowski, 2014). The answer to a continuous decrease in student dropout is a redesign of schools to increase and sustain student engagement (Washor & Mojkowski, 2014). Therefore, if

educators can redesign an engaging learning experience for these students, it can reduce dropout rates and increased graduation rates (Walters, 2016). Once students are engaged, it can help them become interested in coming to school to learn (Walters, 2016).

Parker et al. (2017) explain how giving students real choices in the classroom, whether it is their assignments, the classmates they work with, etc., can boost their engagement. Flowerday and Schraw (2003) describe how educators also believe that choice within a classroom is an effective strategy towards motivation and engagement.

For years, no seating choice has been offered to accommodate student activities. Seats available are meant to be “one size fits all.” If we look at instructional practices, educators should know that there is no “one size fits all” teaching method. Therefore, why do the same with seating? Classroom seating environments should be encouraging engagement, collaboration, communication, creativity, and critical thinking. If students are sitting in rows of desks and chairs all day, this will be limited (Delzer, 2016).

If student engagement is indeed the desired goal, then we, as educators, must adapt right along with our students in our learning spaces. Learning environments represent the vision of an organization’s educational goals (Harvey & Kenyon, 2013). However, with budgets, enrollment issues, and seating capacities, learning spaces are restricted (Harvey & Kenyon, 2013). When learning environments are disregarded, the space becomes a frustrating

environment and creates a barrier to engagement, learning, and teaching (Harvey & Kenyon, 2013). For educational organizations to remain feasible in today's competitive academic world, they must recognize that learning and pedagogy are changing; therefore, learning spaces need to support modern educational practices (Harvey & Kenyon, 2013).

Purpose Statement

There is a growing need for teachers to implement research-based instructional practices to promote engagement (Ivory, 2017). Engagement has been recognized as a multidimensional construct consisting of affective, behavioral, and cognitive components (Connor & Pope, 2013). These components are necessary to achieve full engagement within students (Connor & Pop, 2013). To reach full engagement, educators may want to make learning interesting and enjoyable to students (Connor & Pope, 2013). Flexible seating has become a newly "research-based" practice that can enhance learning and increase student engagement due to student choice in seating options (Burgeson, 2017). Travis (2017) and Allen (2018) show that students who were given the choice of where to sit and what kind of seating with flexible seating increased student engagement in terms of on task behavior and participation. This informs the current study that there is a relation between students being given a choice with flexible seating and their level of engagement. The question is, what level are the students demonstrating? Schlechty (2011) identifies five

levels of student engagement: Rebellion, Retreatism, Ritual Compliance, Strategic Compliance, and Engagement. A student who is exhibiting rebellious behavior refuses to comply and chooses to use their attention elsewhere, often leading to disruption (Schlechty, 2011). A student demonstrating retreatism develops ways to hide their noncompliance (Schlechty, 2011). A student who demonstrates ritual compliance is when the student only does the things that are needed to be done. A student demonstrating strategic compliance considers the task to be of little value; however, they will spend more time and energy required to obtain the outcome or reward (Schlechty, 2011). A student demonstrating full engagement finds meaning and value in the task and will persist in times of difficulty (Schlechty, 2011). Therefore, the purpose of this descriptive study is to examine students' perspectives of their engagement when seated in flexible seating with choice. The researcher seeks to measure the levels of engagement among students that experience flexible seating with choice. The researcher hopes that this study's findings can provide educators with knowledge on flexible seating and the level of engagement students reveal with it. The results of this study can have an impact on educators' instructional practices.

Research Questions

1. What are students' perceptions of flexible seating with choice?
2. What are students' perceptions on their level of engagement with flexible seating with choice?

Significance of the Study

Student engagement is something many educators desire to achieve within students (Gregory & Kaufeldt, 2015; Bray & McClaskey, 2014). Researchers say providing student's choice can foster engagement within a student (Deci et al., 1996; Evan & Boucher, 2015). The Department of Education (2016) states that flexible seating is designed to support active learning in students, which can increase engagement compared to a traditional style classroom design. Therefore, the significance of the study is to show how students perceive their engagement with flexible seating. This study is significant because previous literature lacks student perceptions on flexible seating and their level of engagement. The researcher hopes that the study's findings can provide educators with knowledge on flexible seating and the level of engagement students can demonstrate with it. The results of this study can have an impact on educators' instructional practices. If students perceive to be in full engagement with choice within flexible seating, many educators can seek flexible seating as a tool for student engagement within the classroom. Not only would educators potentially benefit from the results of this study, but students, parents, and other stakeholders in education would also potentially benefit because the results would impact the field of education. The results would possibly benefit all stakeholders and impact the field of education by providing educators a tool to assist in engagement, offering students an engaging learning environment, and

giving parents a sense of comfort that their students are enjoying their learning experience.

Theoretical Underpinnings

Glassner's choice theory will guide this study. Choice theory explains why and how we behave (Glassner, 1998; Erwin, 2004). Glasser (1998) explains that all our behaviors are chosen to satisfy our five psychological needs: survival, love and belonging, power, freedom, and fun. This study will concentrate on the freedom need of choice theory. The freedom need consist of two types: freedom from and freedom to (Erwin, 2004). Within the classroom, freedom from refers to providing students with the opportunity to experience a needed change or avoid something unpleasant (Erwin, 2004). Freedom to in the classroom provides the students with the opportunity of choice (Erwin, 2004). This study will look through a freedom to lens to examine the importance of choice within flexible seating on student engagement.

Assumptions

There are a few assumptions to consider. The first assumption is that engagement is an important construct to understand. The second assumption is that engagement is an important factor for overall student achievement. The third assumption is the self-evident truth that instructional practices need to be changed to have engagement. The fourth assumption is that teachers are

capable of changing instruction. The fifth assumption is that engagement is beneficial. The final assumption is that student choice is a differentiated way that could impact students' engagement differently.

Delimitations

The delimitations of this study include focusing on engagement, not motivation. Delimiting this study to specifically engagement and not motivation is necessary because motivation is caused by something intrinsically or extrinsically, whereas engagement comes after that. Even though motivation is a vital part of learning, to be engaged, motivation is needed; therefore, just because one is motivated does not necessarily mean they are fully engaged. Another delimitation is the focus on the holistic view of engagement rather than only one component. Full engagement encompasses the components of behavioral, cognitive, and affective engagement. Delimiting this study to the holistic view of engagement is necessary because full engagement is what causes learning. If just one component is present does not fundamentally mean that a student is fully engaged and learning. Another delimitation of this study is the focus on first graders from a title 1 school. This is necessary to target this population and its use of flexible seating as an engagement tool. Additionally, this study is delimiting to only flexible seating, no other factors of choice.

Definitions of Key Terms

Key terms used in this study have been defined to provide an understanding that is equitable and understandable. Following is a list of significant key terms used in this study with the corresponding definitions.

Learning Environments

According to the *Glossary of Education Reform* (2013), Learning environment refers to the diverse physical locations, contexts, and cultures in which students learn.

Flexible Seating

Flexible seating is this new trend in education where traditional classroom furniture is being replaced with tables of various sizes, couches, bean bag chairs, therapy balls, pillows, etc. (Havig, 2017).

Seating Designs

The design of chairs or seating styles (Espey, 2008; Harvey & Kenyon, 2013).

Choice

Within Glassner's Choice Theory (1998), the freedom need explains choice as providing students the opportunity to experience a needed change, avoid something unpleasant, or make decisions within their learning.

Engagement

According to the *Glossary of Education Reform* (2016), student engagement refers to "the degree of attention, curiosity, interest, optimism, and

passion that students show when they are learning or being taught, which extends to the level of motivation they have to learn and progress in their education” (para. 1). Engagement in school can be defined as a student’s behavioral, affective (emotional), and cognitive involvement and commitment to learning (Jimerson et al., 2003; Fredricks, J. A. et al., 2004; Yang, P., & Lamb, M., 2014).

Schlechy’s Levels of Engagement

Schlechy (2011) identified five different levels of engagement: Rebellion- Schlechy (2011) identifies rebellious behavior as refusing to comply and use attention elsewhere. Retreatism- Schlechy (2011) identifies retreatism as a student developing ways to hide noncompliance behaviors. Ritual Compliance- Schlechy (2011) identifies ritual compliance as students completing the bare minimum to avoid consequences. Strategic Compliance- Schlechy (2011) identifies strategic compliance as students considering little value to tasks but will associate their attention to the outcome. Full Engagement- Schlechy (2011) identifies full engagement as students who find meaning and value in tasks and persist in times of difficulty.

Summary of the Chapter

Connor and Pope (2013) have explained that student engagement is decreasing as students move through school. It has been described that giving students choices in the classroom can help boost their engagement (Parker et

al., 2017; Flowerday & Schraw, 2003). Seating options should be a part of those choices. Currently, the seating within classrooms is a “one size fits all” when in education, it is known there is no “one size fits all.” According to Delzer (2016), seating environments should encourage engagement, but if students are confined in traditional desks and chairs all day, this will be limited.

Educator's instructional practices should adapt right along with students in the learning environment. Harvey and Kenyon (2013) emphasize that if learning environments are disregarded, it becomes a frustrating environment and creates a barrier to engagement. Educational organizations must recognize that learning along with instruction is ever changing, therefore learning environments need to change as well to support the learning and instruction (Harvey & Kenyon, 2013)

Chapter one has introduced the purpose statement, research questions, significance of the study, theoretical underpinnings, assumptions, and delimitations of the study, as well as the definitions of key terms. In chapter two, a review of the literature regarding learning environments, flexible seating, seating designs, engagement, motivation, choice, and instructional practices that promote engagement will be discussed. Literature reviews are used to give researchers information on other areas of study and help them identify gaps in the present literature (Fraenkel et al., 2015). In chapter three, the research design and methodology of the study are explained in detail. Fraenkel et al. (2015) recommend that procedures of a study “should be spelled out in detail” (p.20). Presentation of data and an analysis of the findings are organized in

chapter four, and in chapter five, the conclusions and recommendations for further research are addressed.

CHAPTER TWO

LITERATURE REVIEW

Learning Environments

According to Anthes (2009), architects have believed that places we occupy can affect how we think, the way we feel, and the way we behave. Behavior scientists are finding that learning environments can promote “creativity, keep students focused... and lead to relaxation and social intimacy” (Anthes, 2009, p. 1, para. 3). Learning environments represent the vision of an institution’s educational goals (Harvey & Kenyon, 2013). Learning environments should also display the value of growing knowledge (Harvey & Kenyon, 2013). However, with budgets, enrollment issues, and seating capacities, learning spaces are restricted (Harvey & Kenyon, 2013). When learning environments are disregarded, the space becomes a frustrating environment and creates a barrier to learning and teaching (Harvey & Kenyon, 2013).

Fischetti (2016) explains how all children work differently, and what may work for one student may not work for another. Fischetti (2016) continues by explaining how in learning, the environment is crucial. If educators are trying to encourage collaboration and critical thinking within their classrooms, the actual space that this is being done in, needs to be considered (Fischetti, 2016).

Learning spaces have been focused on organization for educators rather than the needs of learners (Limpert, 2017). There is a large amount of research available that explores how to differentiate the needs of students. However, little

has been studied regarding the learning environment and how to incorporate flexible seating options to alter student attitudes and behaviors (Limpert, 2017). Incorporating flexible seating options for students within the learning space allows student choice about how and what students are learning, which may increase their motivation (Limpert, 2017). Students would exhibit more motivation in their learning if they were given the opportunity of choice (Limpert, 2017). Limpert (2017) conducted a qualitative study with fourth grade students and teachers through a survey to determine their perceptions about their learning environments and reading. It was found that when providing choice within a learning environment for students, students enjoy the freedom of choice when it came where to sit and what to read (Limpert, 2017). Therefore, educators must make efforts to move away from the traditional learning environment to a more flexible learning environment (Limpert, 2017).

Teaching methods and practices have changed over time, but not classroom spaces (Gurzynki-Weiss et al., 2015). Conversations on transforming classroom design to promote language-learning opportunities have already begun (Gurzynki-Weiss et al., 2015). Institutions are designing classrooms that incorporate technology and in nontraditional manners (Gurzynki-Weiss et al., 2015). The newer designed classrooms are built in hopes to enhance student centered learning and capitalize on student choice and modern structures (Gurzynki-Weiss et al., 2015).

Gurzynki-Weiss et al. (2015) found that classroom design may be an additional contextual factor that may influence language-learning opportunities. “Researchers have investigated the relationship between the classroom environment, student behavior, and academic engagement” (Guardino & Fullerton, 2010; Hood-Smith & Leffingwell, 1983; Visser, 2001). An organized classroom allows for positive interaction between teachers and students, which can reduce challenging behaviors (Guardino & Fullerton, 2010; Martella, Nelson, & Marchand-Martella, 2003). “Additionally, modifying the classroom environment may serve as a direct intervention for children who demonstrate ongoing disruptive behavior” (Conroy, Davis, Fox, & Brown, 2002; Guardino & Fullerton, 2010).

In an elementary school in an urban area of the southeastern United States, Guardino and Fullerton (2010) analyzed a case study of a fourth-grade class with disruptive behavior. Guardino and Fullerton (2010) found that after implementing environmental changes to the classroom, “academic engagement increased immediately and stayed at or near 45%” (p. 12). Before the modified classroom, “overall academic engagement was extremely low before intervention, with students engaged less than 3% of the time” (Guardino & Fullerton, 2010, p. 12). When it came to the disruption within the students “prior to intervention, overall disruptive behavior occurred approximately 90% of the time. After the intervention, disruptive behavior immediately decreased, but was inconsistent during the final observations” (Guardino & Fullerton, 2010, p.12).

Weinstein (1981) reviewed much research on classroom design and its effect on student behavior and attitudes. One research study was by Zifferblatt (1972), who examined the relationship between design and behavior in two third-grade informal classrooms. When it came to teaching styles, curriculum, and classroom activities, much was very similar. However, Zifferblatt (1972) “observed shorter attention spans and more off-task movement and conversation in one than the other” (Weinstein, 1981, p. 16). It was concluded that the differences in behavior were due to the differences in the learning space. In the classroom, where the students' behavior was better, the learning space was clearly partitioned and defined. The desks were arranged in formats of clusters and placed in areas where students can focus more. The teacher was also forced to walk around the room and interact with student activities due to his/her desk being arranged off in a corner (Weinstein, 1981). In the other room, the “areas for different activities were not clearly designated and set apart by barriers; often areas for quiet study and areas for louder activities were contiguous” (Weinstein, 1981, p.16).

Flexible Seating

As teaching strategies are evolving, educators are beginning to see that classroom layout and furniture may need to evolve as well (Kennedy, 2017; Allen, 2018). School settings can be flexible not only in their instruction but also in their classroom seating design and furniture (Kennedy, 2017; Allen, 2018).

Seating options within a classroom allow for student choice, modifiability, and versatility (CDE, 2016; Kennedy, 2017; Allen, 2018). Providing furniture and seating choices influences the way humans interact and can help them meet their freedom need (Anthes, 2009; Erwin, 2004).

Teachers have begun to incorporate a new trend inside their classrooms, causing classrooms to look very different from what they used to (Having, 2017). Flexible seating is this new trend in education where traditional classroom furniture is being replaced with tables of various sizes, couches, bean bag chairs, therapy balls, pillows, etc. (Havig, 2017). Instead of traditional classrooms filled with desks and chairs in rows, teachers are transforming the classroom into a unique lounge-like classroom.

According to the Department of Education (2016), flexible furniture is a must for a collaborative learning space. When a classroom is designed to support the active learning of students, an increase in engagement occurs compared to the traditional row by row classroom seating design (Department of Education, 2016).

In a study conducted by Travis (2017), the relationship between student choice in seating, flexible seating, and the level of engagement in traditional classrooms compared to classrooms offering choice was investigated. The sample was a random sample of 12 schools from a school district in southwest Missouri. Data was collected quantitatively through observations to see whether students had a choice in their seating or were assigned, if seating was flexible

seating or traditional seating, and the total number of engaged or off-task students. Travis (2017) found a positive and significant difference in the engagement of students who had flexible seating compared to those with traditional seating. Travis (2017) also found a positive and significant difference in the engagement of students who had the choice of where to sit compared to those who were assigned. Travis (2017) recommended for future research that researchers should tie qualitative data with a study of student choice and the learning environment.

In a like study, (Burgeson, 2017) conducted an action research project to determine if students were more engaged in flexible seating options compared to traditional desks and chairs. The study was conducted with 23 third grade students. Data was collected through a Likert scale Google form. Each student was asked to think about their experience with each seating option and rate their engagement on a three-point Likert scale. Burgeson (2017) found that some students did enjoy traditional desks and chairs, but others also enjoyed the flexible seating choices. Burgeson's (2017) data did not display any one type of seating option being the best option for students, but it did exhibit that engagement levels varied from student to student depending on their individual needs.

In another study, Allen (2018) conducted a single-subject design and researched the effects of student seating choice on behavior and academic achievement. The participants of this study included students from three fifth

grade social studies and science classes. The participants of this study were of mixed abilities, and five were students with Individualized Education Plans (IEPs). Data on in class behavior was collected through teacher data collection and student self-monitoring. The teacher collected academic data through multiple formative assessments and summative assessments. Allen (2018) found overall an increase in on-task behavior, participation, and academic achievement. Allen (2018) states that based on the study results, it recommended integrating student choice within the classroom in terms of seating design. Allen (2018) suggests more data be collected on the effects of flexible seating on student behavior and academic achievement.

In another study, Jaspal (2019) conducted a phenomenological qualitative research study on teachers' perceptions on flexible seating. The population selected were elementary teachers between grades three and six within rural schools in California. The sample consisted of 12 elementary teachers who implement flexible seating, and data was collected through semi-structured interviews. Jaspal (2019) found that flexible seating has a positive effect on academic achievement, the level of accountability increases with flexible seating, flexible seating empowers students to have ownership, flexible seating helps students stay focused, and flexible seating increases levels of student engagement. Recommendations for future research include: studying the perceptions of students and parents on flexible seating; conducting a quantitative study on academic achievement on secondary students who use

flexible seating; study how flexible seating meets the needs of special education students; examine experienced teachers perceptions on flexible seating; observe schools that fully implement flexible seating; and study the experiences and perceptions of early childhood educators (Jaspal, 2019)

In a qualitative study by Comaianni (2017), she explores if first grade students perform better academically in a flexible seating learning environment structured towards them. Comajanni (2017) collects data from first graders in her class in the 2016-2017 school year and the 2017-2018 school year. The data was collected through a learning style quiz which helped determine the environment they learn best in, observations of students, interviews of students and parents, and progress monitoring with work samples. After analyzing the data, Comaianni (2017) found that her students performed better when given a choice of where to sit that best fits their learning needs.

Other studies have examined flexible seating and other seating designs to see its effect on academics in terms of writing, its effect on environments with at-risk students, and on task behavior. Haan (2015) collected data that showed how kindergarten students' performance in handwriting increased as they worked on stability balls, a type of flexible seating. She found that the experimental group's overall growth was 5.66 percentage points higher than the control group (Haan, 2015). This indicated that students who sat on the flexible seating design of stability balls grew at a faster rate than students who did not (Haan, 2015). Erz (2018) examined the ways flexible seating creates a more

inclusive environment affecting the secondary classrooms of at-risk students.

The participants were from two secondary classrooms that incorporated flexible seating. Data collection was through teacher interviews, analysis of school artifacts, and observations. The findings indicated that it created a sense of choice, democracy, and self-regulation within the classroom (Erz, 2018).

Burgoyne and Ketcham (2015) conducted an observational study in a local elementary school classroom that implemented therapy balls. From their observations, “it was found that therapy ball seating was correlated with increased task behavior” (Burgoyne & Ketcham, 2015, p.45).

These studies can illustrate the positive effects flexible seating has within a classroom setting and its students.

Advantages of Flexible Seating

It is well known that educators have understood that all students have different learning styles. Flexible seating is perfect for this because it allows a variety of options for students to pick their best learning style. One student may learn better sitting on a bean bag chair while another is lying flat on their stomach. Others might realize they need to release energy while learning; therefore, they probably learn better while bouncing up and down on a yoga ball. It just depends on the students’ preference and if the teacher allows variety so that students have the option to do this.

Many benefits come with flexible seating (Smith System, 2019). The first is choice (Smith System, 2019). Students feel empowered when they have control over their environment (Smith System, 2019). Flexible seating gives students the power to choose where they get to complete their work and allows them to change their seating choice as needed (Smith System, 2019). The next benefit is physical health (Smith System, 2019). With flexible seating, students can wobble, rock, bounce, lean, stand, etc. which in turn increases oxygen flow to the brain (Smith System, 2019). All the movement that occurs with flexible seating promotes physical activity, which is linked to higher self-esteem, reduced anxiety, higher academic performance, better health, and improved behavior (Smith System, 2019; CDC, 2010; Doussett, 2015). Flexible seating also provides the benefit of promoting comfort (Smith System, 2019). When a student is uncomfortable, they become distracted and unproductive (Smith System, 2019). Flexible seating allows students to find a seat that can help them stay calm, focused, and productive (Smith System, 2019).

Another benefit of flexible seating is that it builds a sense of community within the students (Smith System, 2019). With flexible seating, students are encouraged to share space and supplies (Smith System, 2019). It encourages turn taking with the different seating options (Smith System, 2019). The benefit of collaboration also comes with flexible seating (Smith System, 2019). Flexible seating allows students to pair up quickly, work in small groups, or discuss as a whole class (Smith System, 2019). Commitment to learning is an essential

benefit of flexible seating (Smith System, 2019). Flexible seating is a strategy to improve learning environments, and learning environments have shown a direct impact on student achievement (Smith System, 2019). Communication is another benefit of flexible seating (Smith System, 2019). Flexible seating involves much communication because it requires higher-order thinking skills and emotional coping skills (Smith System, 2019). It fosters turn-taking and patience within the classroom because students need to know how to work with one another in a flexible seating environment (Smith System, 2019).

An additional benefit to flexible seating is sensory input (Smith System, 2019). Many of the seating designs in flexible seating stimulate students' sense of touch, helping them focus and process information (Smith System, 2019). This is very helpful for kids with ADHD and ASD (Smith System, 2019). Finally, it promotes fun within the classroom, which is great for making learning enjoyable (Smith System, 2019).

In a study done by Havig (2017), other benefits were found. First, it was established that the majority of students in the study stated their opinion as liking flexible seating (Havig, 2017). It was also established that when it came to student choice, the majority of students believed they chose seats that helped them focus (Havig, 2017). When it came to their seating preference, students indicated they liked having the option of where to sit, however many still did indicate they would still like to have a desk (Havig, 2017). Another benefit was

that many teachers noticed with flexible seating that students come to school more eager to learn (Delzer, 2016; Havig, 2017).

Havig (2017) added that students that are engaged and motivated tend to be happy. Havig (2017) found that flexible seating provides students with more opportunities to move and make responsible choices in the classroom. Students feel responsible when they are given the power to freely pick and choose where they want to sit in order to learn better (Havig, 2017). Students become more committed, more motivated, and more engaged in their learning when given this responsibility (Havig, 2017).

Students today are substantially different from students from long ago. Everything has changed in the world they live in. Therefore, since the world has changed, classroom environments should change as well. Classrooms need to be renovated to promote everlasting change and the upbeat world we live in that will always foster growth and learning. Tollefsen (2016) explains from the results of her study “that students learn when given choice, autonomy, and voice” (p. 28). Flexible seating can give students that choice, autonomy, and voice that is needed in their educational setting to achieve engagement.

Flexible Seating and Special Education

Many students in the general education classroom struggle already to sit still and be engaged; imagine the challenge it must be for a student with special needs (Zeigler, 2006). Children with special needs are being asked to spend

hours in the general education classroom “attending, organizing, and controlling their actions” when in general, those are the main challenges they face on a daily basis within the classroom setting (Zeigler, 2006, p.12). Students with disabilities struggle to stay focused due to educators failing to address their sensory needs, leading to undesirable behaviors (Schrage, 2018; DeGangi, 2017). These behaviors must be addressed in the classroom with intervention strategies or tools from the special education teacher (Schrage, 2018).

Different types of seating can enhance the general and special education classrooms by providing teachers with the tools to accommodate their students on task work (Schrage, 2018; Fedewa, Ahn, Erwin & Davis, 2015; Fedewa & Erwin, 2011; Chen, Yan, Yin, Pan, & Chang, 2014). On task work increases when tools are provided to students that allow them to move (Schrage, 2018; Fedewa, Ahn, Erwin, & Davis, 2015; Fedewa & Erwin, 2011; Chen, Yan, Yin, Pan, & Chang, 2014). Studies show that students with disabilities benefit from movement in the classroom because it improves concentration levels (Schrage, 2018; Rosenthal, Malek & Mitchell, 1997; Fedewa, & Erwin, 2011; Howie, Beets, & Pate, 2014).

In children, the most frequent neurobehavioral disorder that gets diagnosed is Attention Deficit Hyperactivity Disorder (ADHD) (Kauffman, 2001; Schilling et al., 2003). According to the Center for Disease Control and Prevention (CDC), in 2016, approximately 9.4% (6.1 million) of children ages 2-17 years old have been diagnosed with ADHD. In addition, the CDC also

reported that 1 in 59 students ages 3 to 21 had been diagnosed with autism spectrum disorders (ASD).

Children diagnosed with ADHD experience sensory motor problems that affect academics and make regular school activities difficult (Mulligan, 2001; Schilling et al., 2003). It has been identified that children with ADHD have problems sitting and paying attention (Goldstein and Goldstein, 1992; Schilling et al., 2003).

The difficulties linked to attention deficit hyperactivity disorder (ADHD) such as paying attention, being able to self-regulate behavior, and hyperactivity tend to turn into educational, social, and behavioral problems for children diagnosed with ADHD (Fedewa & Erwin, 2011; Loe & Feldman, 2007; Massetti et al., 2007). An intervention approach used to address students' behavior with ADHD is the change of the classroom environment to meet the students' needs (Schilling et al., 2003).

An intervention that has increased students' focus and improved their academic achievement is the use of stability balls in a classroom rather than chairs (Carriere, 1998; Schilling, Washington, Billingsley, & Deitz, 2003; Fedewa & Erwin, 2011). In Schilling's et al. study (2003), it was found that both in-seat behavior and legible word productivity improved in students with ADHD when seated on the therapy balls. In Fedewa and Erwin's study (2011), they investigated the effects of stability balls on children's classroom behavior. Their study took place in an elementary school in central Kentucky, where they

evaluated 76 children, from grades third through fifth, hyperactivity levels. Eight of those students were classified at or above the 92nd percentile in attention and hyperactivity levels. They found that all 76 students had improved attention and hyperactivity levels when stability balls were used instead of chairs (Fedewa & Erwin, 2011). Of the eight students who were classified severe in attention and hyperactivity, the stability balls had a great effect on improving their attention and hyperactivity levels (Fedewa & Erwin, 2011).

Children diagnosed with Autism Spectrum Disorder (ASD) often display concerns in communication, social interaction, and behavior in the classroom (Fein & Dunn, 2007; Simpson, Myles, & LaCava, 2008). “Behavioral concerns such as difficulty sitting still, attending to relevant stimuli, and engaging in teacher-initiated activities interfere with participation in classroom activities” (Bagatell et al., 2010, p. 895). An intervention recommended is the use of sensory processing strategies (Bagatell et al., 2010; Watling, Deitz, Kanny, & McLaughlin, 1999). One of these strategies includes the use of therapy ball chairs (Bagatell et al., 2010). Schilling and Schwartz (2004) conducted research on how stability balls affected classroom behavior in young children with ASD. Their study investigated the effects of therapy balls as seating, on engagement and in-seat behavior of young children with ASD. Their study found improvements in engagement and in-seat behavior with the use of therapy balls.

To further elaborate on the positive effects of flexible seating with students with special needs, it is essential to understand special education teachers’

perspectives on flexible seating. Schrage (2018) conducted an exploratory case study where special education teachers' perspectives on flexible seating and its impact on students' behavioral needs with disabilities were explored. Twenty-two participants completed a survey and shared their perceptions of flexible seating in a special education classroom. The results indicated that “choices, tools, and rewards of a flexible seating classroom improved the health and behavior of students” (Schrage, 2018, p. 78). Schrage’s respondents all perceived that flexible seating with students with disabilities is much needed in the classroom as a behavioral tool (2018). Therefore, it can be seen that flexible seating designs do benefit not only students with special needs but also special education teachers.

Seating Designs

Classroom environments, as well as seating structure and designs, are affecting student learning (Espey, 2008; Harvey & Kenyon, 2013). In fact, designs of chairs and seating styles are an important element in the physical learning environment, especially as students’ body shapes and sizes are evolving (Espey, 2008; Harvey & Kenyon, 2013). Numerous studies have demonstrated the importance of ergonomic furniture, in other words, comfortable furniture (Breithhecker, 2006). This type of furniture promotes motivation and satisfaction with a work and learning environment (Breithhecker, 2006).

Ergonomic furniture ultimately ensures increased performance and productivity (Breithhecker, 2006).

Studies have shown that when a person is seated, 86% of their weight is supported by the chair (Harvey & Kenyon, 2013). This illustrates that chairs play an essential role in supporting weight. Thariq et al. (2010) indicate when sitting in static tables and chairs, the development of musculoskeletal disorders, poor posture, back pain, neck pain, and other health-related concerns could be affected. It is also explained how, when the body becomes inactive after being motionless and sitting in a traditional classroom, brain activity is reduced (Breithecker, 2006). Therefore, “since students must sit for lengthy periods of time, static posture may impede learning, diminish attention span and concentration, and result in fatigue, drowsiness, or even pain or discomfort” (Harvey & Kenyon, 2013, p.2).

Universal Design for Learning (UDL) identifies alternative seating as a strategy for student engagement (2019). UDL describes alternative seating as seating equipment of different styles that support a students’ need for movement or body sensation (2019). It also states that alternative seating “can help some students maintain focus while working” (Universal Design for Learning, 2019).

In addition, the Department of Education (2016) explained that the way a classroom is laid out should promote learning for students that prepares them “for college, careers, and citizenship in the twenty-first century.” California schools are moving forward in modernizing their school facilities that provide a

flexible learning environment that can support diverse teaching and learning needs. In order to establish a twenty-first-century classroom, the space within the classroom needs to be “adaptable to allow multiple learning activities to occur simultaneously” (Department of Education, 2016, p.1).

For years in U.S. schools, no seating choice has been offered to accommodate the variety of student activities taking place (Kennedy, 2017). Seats that are currently in classrooms are a one-size-fits-all when it is known that there is no one-size-fits-all (Kennedy, 2017). Times are changing, educational practices are as well, and with 21st-century learning occurring, school facility planners realize they need to get away from the traditional classroom setting (Kennedy, 2017). In order to encourage modern teaching strategies, schools need learning environments that can accommodate those strategies with a variety of space and seating (Kennedy, 2017). Providing different seating types in a classroom can be accommodating to meet the needs of individual students (Kennedy, 2017)

Engagement

According to the *Glossary of Education Reform* (2016), student engagement refers to “the degree of attention, curiosity, interest, optimism, and passion that students show when they are learning or being taught, which extends to the level of motivation they have to learn and progress in their education” (para. 1). Moreover, schools and teachers long for getting students to

pay attention and achieve engagement (Gregory & Kaufeldt, 2015; Bray & McClaskey, 2014). Likewise, Price (2015) discussed that for a student to learn, they must be engaged; when a student is not engaged, the learning is lacking. Bedell (2013) suggests students who are engaged enjoy challenges that get them curious, provoke their interest, and bring them excitement.

Schlechty's Levels of Engagement

When a student is engaged, there are more elements involved than just listening, behaving, and being on task (Bedell, 2013). A holistic view of engagement within students looks at what students do, think, and feel (Bedell, 2013). Schlechty (2011) explains that four components characterize a student who is engaged. One of these components is attentiveness (Schlechty, 2011). Another valuable factor is commitment (Schlechty, 2011). Persistence is another crucial element (Schlechty, 2011). Finally, for a student to be engaged, they must find meaning and value in the tasks they do (Schlechty, 2011). All four of these components must be present for a student to be fully engaged (Schlechty, 2011).

Schlechty (2011) identifies five ways in which a student may respond regarding engagement of a task: Rebellion, Retreatism, Ritual Compliance, Strategic Compliance, and Engagement. A student who is exhibiting rebellious behavior refuses to comply and chooses to use their attention elsewhere, often leading to disruption (Schlechty, 2011). When demonstrating rebellion, students are more likely to reject their task at hand, and the value the work may suggest (Schlechty, 2011). Another behavior is retreatism, which manifests itself by the

student doing nothing and bothering no one. (Schlechty, 2011, p. 32). When a student is retreating, they develop ways to hide their behaviors of noncompliance (Schlechty, 2011). Ritual compliance is an additional way in which students respond to a task (Schlechty, 2011). When a student is in the state of ritual compliance, the student only does the things that are needed to be done. A student will complete the bare minimum to avoid consequences (Schlechty, 2011). In strategic compliance, the student considers the task to be of little value; however, will associate their attention with the outcomes such as grades (Schlechty, 2011). Students in strategic compliance will spend more time and energy required to obtain the outcome or reward (Schlechty, 2011). At the furthest end of the scale is full engagement, which refers to a student who finds meaning and value in the task and will persist in times of difficulty (Schlechty, 2011). A student in full engagement will volunteer their resources, demonstrating their commitment to the work, and placing moral value in it (Schlechty, 2011).

Knowing how students can respond to a task in terms of engagement, research finds that engagement within students in learning has declined as students move through school (Conner & Pope, 2013). Even in high performing schools, it may be challenging to identify which students are truly engaged with their learning (Conner & Pope, 2013). Students in these schools identify themselves as “robo-students” and feel that when going to school, they are just going through the motions to get by (Conner & Pope, 2013, p. 1426). Under Schlechty’s (2011) definitions, these students can be identified as exhibiting ritual

or strategic compliance. In order for these students to achieve full engagement, they require meaning and value added within their tasks (Schlechty, 2011).

Benefits of Engagement

Research has shown that engagement within students provides many benefits (University of Washington, 2019). Conner and Pope (2013) state how studies have associated student engagement with positive physical, social, and psychological development. Bedell (2013) explains that students who are engaged “learn more, develop greater critical thinking skills, and are more satisfied with school” compared to their peers who are not engaged in school (p. 10). Benefits of school engagement go beyond school, including “interpersonal skills, social awareness, and establishing one’s identity” (Bedell, 2013, p. 10). Research has established that engaging students “increases their attention and focus, motivates them to practice higher-level critical thinking skills, and promotes meaningful learning experiences” (University of Washington, 2019, para. 1). The key to fostering these components is to generate interest in subjects that students may typically be uninterested in (Walters, 2016). To do this, educators need to be creative in providing knowledge to their students (Walters, 2016).

When there is a lack of creativity in instruction, students can become disengaged. Students that are disengaged tend to have the least involvement in school activities because students who do not feel engaged are less likely to put

in extra effort (Walters, 2016). If educators can find a way to create engagement in schools, students can become more involved, fostering interaction, and community within students and their peers (Walters, 2016).

It is beneficial when students are engaged in the classroom because there are fewer disruptions (Walters, 2016). Disengaged students will often speak out and disrupt the lesson for other students (Walters, 2016). Engaged students will not only reduce class disruptions but will also promote more effective teachers (Walters, 2016). Teachers who are not disrupted continuously by disengaged students get more time to teach students in-depth (Walters, 2016).

Even with the amount of improvement the education system has attempted, students still lack engagement (Walters, 2016). Students deserve a quality education and the benefits that come with it (Walters, 2016). When educators focus more on engagement in the activities, beneficial components will be generated (Walters, 2016).

Cognitive, Behavioral, and Affective Engagement

Similar to how Schlechty (2011) explains that there are components to student engagement, many researchers have also found that full engagement should be viewed in a more holistic view encompassing different components. Engagement in school can be defined as a student's behavioral, affective (emotional), and cognitive involvement and commitment to learning (Jimerson et al., 2003; Fredricks, J. A. et al., 2004; Yang, P., & Lamb, M., 2014). Behavioral

engagement is described as a student who attends class, voluntarily participates and talks about learning; a student who perseveres even when work gets tough (Fredericks et al., 2004; Bedell, 2013; Doussett, 2015). Cognitive engagement refers to a student who is reflective of their learning and incorporates thoughtfulness and willingness to exercise the necessary effort to master skills (Fredericks et al., 2004; Bedell, 2013; Doussett, 2015). These types of students set goals, regulate their behavior, and go beyond requirements (Fredericks et al., 2004; Bedell, 2013; Doussett, 2015). It is more profound than surface learning; the students are focused and determined to master the content (Bedell, 2013). Affective or emotional engagement is characterized by a student who displays their enjoyment and sense of belonging and relatedness (Fredericks et al., 2004; Bedell, 2013; Doussett, 2015). It is formulated by forming relationships and feeling successful (Bedell, 2013). When students hold enjoyment for a subject and have supportive student-teacher relationships, students are more likely to value their learning (Bedell, 2013).

Yang and Lamb (2014) conducted a mixed-method design study where they examined child and contextual factors in order to explore behavioral engagement in a classroom. Factors included were: effortful control, impulsivity, attachment security, teacher-child closeness, teacher-child conflict, school liking, school avoidance, etc.; factors that may promote behavioral engagement in the classroom. Their sample was a small sample of 67 early childhood students with an average age of 54.33 months. Data was collected through questionnaires,

rating scales, and observations. Their results suggested that child and contextual factors such as those mentioned previously might collectively affect the early development of behavioral engagement in structured environments, such as school (Yang, P., & Lamb, M., 2014). Since Yang and Lamb (2014) were limited to a small sample, they suggest further research on early child engagement to better understand how child characteristics and environmental features foster behavioral engagement.

In an attempt to examine affective and cognitive engagement within students, Flowerday and Schraw (2003) conducted an experiment in which they studied the impact of having the ability to choose between different tasks. In their experiment, they used a 2x2 between subjects design in which they examined how given a choice between tasks affects cognitive and affective engagement. In their sample of 84 students, each was assigned to one of two sessions. In one session, students were given a choice between two activities, where as those who were a part of the second session, were not provided with a choice. They compared the performance between the different choice tasks with several different sets of analyses including a two 2x2 analyses of variance (ANOVAs) and a Hotelling's T test. In their results they found that choice did not enhance cognitive engagement, however, it did have positive impact on affective engagement (Flowerday & Schraw, 2003). In addition, Flowerday and Schraw (2003) found that choice had a detrimental impact on deeper learning. Their findings also support the enhanced affective engagement hypothesis which

states that even a short term choice can increase positive affective engagement (Flowerday & Schraw, 2003). Furthermore, the results of this study suggest future research is needed, in order to explore the extent to which choice affects either perceptions of autonomy or intrinsic motivation (Flowerday & Schraw, 2003). They also suggest comparing the effects of short-term versus long-term choice as well as the effects of choice on students of different ages (Flowerday & Schraw, 2003).

With a focus on robo-students and their levels of behavioral, affective, and cognitive engagement, Conner and Pope (2013) conducted a quantitative study to understand the prevalence, effects, and causes of being robo-students in a high performing school. Their sample consisted of 6,294 high school participants from 15 different high-performing schools. The participants completed the Stanford Survey of Adolescent School Experiences, which surveyed students' experiences with school engagement. Conner and Pope (2013) found that average rates of behavioral engagement surpass those of cognitive engagement, while affective engagement remains infrequent. Conner and Pope (2013) found that 17% of the sample reported that they are often or always affectively engaged in their schoolwork, 84% of the respondents reported being often or always behaviorally engaged, and 42% reported being often or always cognitively engaged. Their analysis revealed three different types of overall engagement within the participants: reluctantly engaged encompasses 21% of the participants, busily engaged makes up 48% of the participants, and fully engaged

with 31% of the participants (Conner & Pope, 2013). Reluctantly engaged students are defined as those that sometimes work hard, but rarely enjoy or value their schoolwork (Conner & Pope, 2013). The busily engaged students work hard in school, but they only occasionally enjoy the work or find it meaningful or important (Conner & Pope, 2013). The fully engaged students regularly enjoy schoolwork, exert effort, and value the assignments they are given (Conner & Pope, 2013). In addition, Conner and Pope (2013) found that 65% of these students from high achieving schools with grade point averages above 3.5 expressed high rates of academic stress and 91% of the students reported to have cheated on their schoolwork at least once since coming to their current school. With their findings, they were able to conclude that fully engaged students achieve significantly higher grade point averages, while reluctantly engaged students report having the lowest grade point averages (Conner & Pope, 2013). Fully engaged students also cheat significantly less while reluctantly engaged students cheat the most and fully engaged students experience significantly less academic worry and significantly fewer internalizing, externalizing, and physical symptoms of stress than students in the two other engagement profiles (Conner & Pope, 2013). These findings illustrate that reluctantly and busily engaged students suffer more compared to fully engaged students (Conner & Pope, 2013). Conner and Pope's (2013) discoveries raise considerations for future research. They recommend conducting a similar study of engagement at the classroom level and further test the relationships among

engagement types. They also recommend expanding the sample to low achieving schools that patterns can be explored in diverse schools as well.

To further elaborate on the holistic view on engagement, Ivory (2017) conducted a study to increase engagement in a mathematics class by using collaborative groups to solve real-world problems through an action research process. The data for this study was collected from a Title 1 school in a southeastern state. Data was collected qualitatively through lesson plan revisions, reflections, conversations with students, and a narrative. The data was then analyzed and interpreted by finding common themes throughout the data. Common themes that were located in lesson plan revisions and student feedback helped Ivory (2017) identify deficits in the instructional design and make necessary instructional changes within the collaborative groups to promote engagement in mathematics. After the completion of this action research study, Ivory (2017) was able to make the necessary instructional changes to help promote engagement within her students in mathematics. Ivory (2017) found that when using a constructivist lens and having the students participate in the learning process by them providing feedback on their learning and working collaboratively; cognitive engagement, confidence, and independence was promoted. Additionally, Ivory (2017) found that when making the collaborative work challenging, persistence was displayed within the students which is an important component to behavioral and emotional aspects of engagement. Ivory (2017) also provided implications for curriculum and instruction. Ivory (2017)

explains that having a theoretical framework is an important foundation for a successful classroom. Ivory (2017) also implies that if teachers incorporate action research into their instruction through student centered activities and monitoring, an increase in engagement can occur. Recommendations for future research are to increase low-ability student engagement in middle grade mathematics, create meaningful engagement conversations with low-ability students, and create engagement strategies to ensure mathematical understanding for low-ability students (Ivory, 2017).

Engagement and Motivation

Given that motivation is at times interchanged with engagement it is important to distinguish the two. The terms are interchanged often but motivation is what comes before engagement; motivation is the energy that causes engagement (Gregory & Kaufeldt, 2015). The unmotivated student is a great challenge to teachers (Evans & Boucher, 2015). “Teachers everywhere strive to motivate their students and engage them in learning” (Gregory & Kaufeldt, 2015, p.9). Fredericks (2014) defines motivation as psychological and internal processes, where as engagement is attributed to how a student relates with a situation. Halpern et al. (2013) explains how when learning, motivation within a student is stronger when there is prior knowledge of the given topic which then causes interest to be activated. Headeen and McKay (2015) identify motivation as the vital part of learning and explain how psychologists have defined

motivation as the direction of energy towards a goal.

Self- Determination Theory

Self-determination theory (SDT), developed by Deci and Ryan, is a theory of motivation that defines intrinsic and extrinsic types of motivation (“Self-Determination Theory”, 2019). It is used to understand student engagement, including the role motivation plays within student engagement (Deci & Ryan, 1985; Doussett, 2015). SDT differentiates between different types of motivation towards engagement (De Naeghel et al., 2012). According to Deci and Ryan (2000), the different types of motivation, intrinsic and extrinsic, are distinguished depending on the reason that spark an action for engagement. Intrinsic motivation refers to doing something because it brings interest or enjoyment within (Deci & Ryan, 2000). Extrinsic motivation, on the other hand, refers to doing something because it leads to a desirable outcome (Deci & Ryan, 2000).

In order for a student to be self-determined or motivated, a student will experience a desire to fulfill some basic needs which include autonomy, competence, and relatedness when motivation and engagement are sought within activities (“Self- Determination Theory”, 2019; Doussett, 2015; Deci & Ryan, 2000). Autonomy is defined as a student who believes they have a choice and are able to connect to the activity based on their own values (Connell & Wellborn, 1991; Doussett, 2015). Competence is characterized by a student who sees themselves as capable of achieving their goal (Connell & Wellborn, 1991; Doussett, 2015). Relatedness refers to a student who can connect the activities

to their own goals and values (Connell & Wellborn, 1991; Doussett, 2015). Both intrinsically and extrinsically motivated behaviors, that satisfy these needs, are models and representations of self-determination (Deci & Ryan, 2000).

Flow Theory

Csikszentmihalyi and LeFevre (1989) refer to flow as the “optimal experience” (Csikszentmihalyi & Lefevre, 1989). Moneta and Csikszentmihalyi (1996) define flow as a “psychological state in which the person feels simultaneously cognitively efficient, motivated, and happy.” (p. 277). The term “flow” was defined by Gregory and Kaufeldt (2015) as “the mental state that is achieved when a person performing an activity is immersed in a feeling of energized focus, full involvement, and enjoyment in the process of the activity” (p. 127). Flow is described as people being “fully immersed in what they are doing,” and when a person is in flow, they are “completely involved and absorbed” (Bray & McClaskey, 2014, p. 41). Bray and McClaskey (2014) identified flow in relation to engagement; whereas educators can provide opportunities for students to be in a state of flow, students will be more motivated and engaged towards the activity.

Choice Theory

Choice theory was developed by William Glasser and it explains why and how we behave (Erwin, 2004; Glasser, 1998). Glasser (1998) explains that all of our behaviors are chosen in satisfaction of our five psychological needs: survival,

love and belonging, power, freedom, and fun. Understanding these basic needs can help transform a classroom (Erwin, 2004). Once they are understood, a foundation can be developed for strategies and techniques to be used in the classroom that do not rely on ineffective extrinsic motivational techniques (Erwin, 2004). Schaps (2005) studied the role of supportive school environments and identified that when caring school climates meet the psychological needs of students, the students are more likely to become engaged.

Regarding our survival need, educators who do things to help students have a sense of physical and emotional safety this can help improve their learning (Erwin, 2004). As educators, if we make sure we create environments that provide a sense of security in students, which can aide in relieving stress that may be inhibiting our students from concentrating and learning (Erwin, 2004).

The need to feel loved and a sense of belonging is essential for effective learning within students (Erwin, 2004). Erwin explains that according to research on the brain “all effective learning has a social component” (Erwin, 2004, p.47). In order for educators to create the best learning experience for their students, educators should focus on the connection with their students from the very start (Erwin, 2004). Educators need to make sure students feel accepted from both the educator and their peers so they can feel better about themselves, work harder, and learn better (Erwin, 2004; Marzano, 1997). Feeding the need to belong can increase quality learning within students (Erwin, 2004).

According to choice theory, the power need is defined in three ways (Erwin, 2004). The first is the power over which is having the urge to control others (Erwin, 2004). The second is power within, which is the personal empowerment over learning and accomplishing goals (Erwin, 2004). The third is power with, which is when we work collaboratively and gain power together (Erwin, 2004). Within the school settings, students can meet this need if teachers provide students with opportunities to accomplish power within and with (Erwin, 2004). If students are not given these opportunities of power with and within they may seek the need of power over (Erwin, 2004). Demonstrating the power over within students displays behaviors such as bullying and violence (Erwin, 2004).

In schools, as well as in society, any freedom we exercise comes with responsibility (Erwin, 2004). The freedom need is one of the most difficult needs for students to meet, however if we want our students to become responsible members in our society it is essential that we allow them to experience freedom within their schooling (Erwin, 2004). Two kinds of freedom that can be provided within classrooms for students are freedom from and freedom to. Freedom from in the classroom refers to providing students with the opportunity to experience a needed change or to avoid something unpleasant (Erwin, 2004). An example of this is a chill-out chair; students can sit in a comfortable chair separated from their classmates to calm down when they feel upset or angry (Erwin, 2004). Freedom in the classroom is allowing the opportunity of choice within the classroom (Erwin, 2004). An example of this is the choice of seats within a

classroom; allowing students to choose where they sit can help them meet their freedom need (Erwin, 2004). If we really want students to take responsibility for their own learning through responsible decision making then we must provide opportunities within the school setting that will allow them to do so (Erwin, 2004).

Similar to the other psychological needs, fun is something we also need (Erwin, 2004). Regarding education, if we want students to enjoy learning and be motivated in their learning, fun is an essential component in the classroom (Erwin, 2004). Classrooms that are inspiring are considered fun and teachers who are inspiring purposefully incorporate fun into their instruction (Erwin, 2004; Sullo, 1999). To create this inspiration, educators must move past the standard that learning is always hard work and understand that the aspect of fun is necessary for quality learning (Erwin, 2004).

Student Engagement and Choice

An important factor to consider when exploring student's motivation that may be overlooked is the school's environment, which provides opportunities for choice and decision (Deci & Ryan, 2002; Otis, Grouzet, & Pelletier, 2005, Evans & Boucher, 2015). Evans and Boucher (2015) examine previous research on providing choice to foster engagement and motivation. Providing choice for a student plays a crucial role in a students' intrinsic motivation for learning (Deci et al., 1996, Evan & Boucher, 2015). Providing choices within classroom activities results in students' autonomy being supported, which can create deep

engagement in learning (Deci et al., 1996; Evans & Boucher, 2015). However, just providing choice does not necessarily mean students will be motivated (Evans & Boucher, 2015). In order for choice to foster engagement and motivation, the choices given to students must be meaningful and competence-enhancing (Evans & Boucher, 2015).

Similarly to Schaps (2005) research, which discussed that when educators meet the psychological needs of students, students are more likely to become engaged; Erwin (2004) explains how the psychological need of freedom can provide a variety of choices to students within a classroom, which in turn, can foster engagement. Fredericks (2014) agrees that giving students autonomy in the classroom can enhance their engagement. Erwin (2004) provides some classroom practices that offer choice within the classroom. These include: allowing students to develop the class agenda, choice of partners, a student-centered curriculum, letting students choose the order of the learning units, choosing within assignments, choosing the types of texts to read, choosing what they get to write about, choosing the type of performance assessment, choosing what goes inside their portfolio, and choice of seating to name a few (Erwin, 2004). In classrooms where students have freedom to pursue their interests, engagement will be fostered, which will then lead to an increase in learning (Erwin, 2004).

Akers (2017) adds that “Increasing student engagement is not a simple task. It takes time and energy from teachers and students” (p.32). To increase

student engagement, Aker's (2017) department conducted a case study where a STEM camp was offered for incoming freshman during the summer. There were 17 students enrolled. During the challenge of the construction of a Rube Goldberg device it was noticed that an important factor to student engagement was student choice (Akers, 2017). At the beginning of the school year, Aker's department discussed more ways to provide student choice since the students from the STEM camp expressed pleasure when they were provided with choice (Akers, 2017). Aker (2017) explained that when students are given a voice towards their classwork, it yields in great benefit.

Parker et al. (2017), include that in order to boost student engagement they must be given real choices in the classroom. Doing so will allow them to capitalize on their strengths and meet their individual learning needs (Parker et al., 2017). They describe two case studies in which high school mathematics teachers provided choices for their students (Parker et al., 2017). In the first case, a teacher gave her Algebra 1 class a choice of activities to work on. Parker et al. (2017) explain that the teacher noticed the students were having difficulty choosing an activity, most likely due to never have been previously provided with the ability to make a choice within a school setting. Therefore, the teacher made sure to teach the students how to choose an appropriate activity to work on. After a few weeks, the teacher noticed that students became comfortable choosing activities and they were productive in their work (Parker et al., 2017). "Overall, [the teacher] found that students knew what they needed to work on and when

they needed help, and they used their time accordingly” (Parker et al., 2017, p. 38).

In the other case, another teacher also offered choice activities to her students, all of which were the same concept, but of different difficulties (Parker et al., 2017). This teacher’s method did not yield in the same productive results as the previous mentioned teacher (Parker et al., 2017). The students were treating the work as busywork, rushing through them, and were picking the easiest activities (Parker et al., 2017). In their research, Parker et al. explain Idit Katz and Avi Assor’s (2007) argument on how “what matters most isn’t the kind of choice given to students but rather how students perceive the choice provided to them” (2017, p. 39). Students associate their feelings towards choice with autonomy, competence, and relatedness (Parker et al., 2017).

Autonomy in students is elicited when they believe the task they are given is aligned with their values (Connell & Wellborn, 1991; Doussett, 2015; Parker et al., 2017). “It comes not just from participating in the process of choosing but rather from having a sense that the choice is personally meaningful” (Parker et al., 2017, p.39). Looking at the choices the two teachers gave, there was something about the choices the first teacher provided that made the students feel that those were more meaningful compared to the others (Parker et al., 2017).

Students feel competent when they believe they possess the skills to successfully master a task (Connell & Wellborn, 1991; Doussett, 2015; Parker et

al., 2017). “To engender competence, students must perceive choosing the task and doing the selected work as appropriately difficult” (Parker et al., 2017, p.39). The first teacher provided three to four choices, choices that were based upon what she felt addressed the students’ learning needs; they were given with explicit instruction on how to make an appropriate choice (Parker et al., 2017). The second teacher’s choices were of the same concept but had the students choose between two of four problem difficulty levels; then one or two problems within that level. These choices could have been too complex for the students because it required the students to choose two times with no instruction on how to make an appropriate choice. “The other part of engendering competence is that students must be able to choose tasks that are appropriately challenging. That is, possible tasks should not all be too easy or too hard” (Parker et al., 2017, p.39). With that, the first teacher’s students were able to find tasks that engaged them, and they were able to complete them on their own (Parker et al., 2017). The second teacher’s students could not find problems that best suited them most likely due to the high cognitive demand (Parker et al., 2017).

When students feel close to people or have a sense of belonging, they are able to acquire a sense of relatedness (Connell & Wellborn, 1991; Doussett, 2015; Parker et al., 2017). In terms of choice, a student’s feelings of relatedness can be influenced differently depending on their beliefs (Parker et al., 2017). Students who have a collectivist belief “value relationships” and make group efforts (Parker et al., 2017, p.39). If they are given a choice individually, it is

seen as a threat to their group unification (Parker et al., 2017). Students that have a hierarchical belief “value the role of authority figures” and see when they are given a choice as a threat to authority figures (Parker et al., 2017, p.39). Students that have “individualistic beliefs value personal goals over group goals” (Parker et al., 2017, p.39). These students see choice as an opportunity to display their individuality (Parker et al., 2017). With the first teacher, she was able to give her students choices that supported their sense of relatedness since students worked more closely together (Parker et al., 2017). For the second teacher, relatedness is not clear since she only provided choice to her students for one day (Parker et al., 2017).

Moreover, as previously mentioned with Flowerday & Schraw (2003) educators believe that giving students choices within the instruction is an effective strategy to use to enhance motivation (Flowerday & Schraw, 2003). In their quantitative experimental study 84 college undergraduates were used to examine the effects of choice on cognitive engagement and affective engagement. Students were each given two choices; to complete a task of either an essay or a cross word puzzle, or, they were not provided choice at all. The results of the study indicated four findings. The first being, that interest had an impact on what task individuals selected when they were given a choice (Flowerday & Schraw, 2003). The second finding yielded that choice did not enhance cognitive engagement (Flowerday & Schraw, 2003). The third resulted that choice had some positive impact on measures of affective engagement

(Flowerday & Schraw, 2003). The fourth was that individuals in the no-choice group worked harder even though they were less interested (Flowerday & Schraw, 2003). Overall, they found that choice does have an impact on deeper learner and enhances affective engagement (Flowerday & Schraw, 2003)

Another study by Lane et al. (2015) examined two first graders and their academic engaged time (AET) on two types of instructional choice: across task choices (choosing the order to complete tasks) and within-task choices (choosing how to complete a task). They utilized a single case design methodology and collected data using momentary time sampling procedures because it allowed the teachers to collect data without interfering with the instruction. This type of time sampling is collected in two-minute intervals during independent writing. Results indicated that both types of choice resulted in increases in AET for both students, with one demonstrating higher levels of AET during across-task conditions and the other demonstrating higher levels of AET during within-task conditions.

Classroom Practices That Promote Engagement

The practice of teaching involves not just helping students learn but strengthening their capacity to learn (Taylor & Parsons, 2011). Throughout literature, many studies have recommended what they identify as the best practices to engage students in their learning (Taylor & Parsons, 2011).

One strategy that educators have always used to push their students to

become further engaged is the use of positive or negative incentives (Headden & McKay, 2015). Teachers have used different approaches to boost behaviors they desire to see and depress the ones they do not (Headden & McKay, 2015). Ideally, students would be intrinsically motivated in their learning, unfortunately this is not always the case (Headden & McKay, 2015). A way to change the behavior for these students who are not intrinsically motivated is to reach them through external incentives, in other words through rewards (Deci & Ryan, 2000; Headden & McKay, 2015). For example, money can be an external incentive for students (Headden & McKay, 2015). Headden and McKay (2015) explained a study by Harvard economist Fryer (2011) who studied financial incentive programs in four U.S. cities. One of the cities Fryer studied was Dallas. In this program, second graders were paid two dollars for each book they read. The other programs in Chicago, the District of Columbia, and New York students were paid money for earning good grades, good test scores, etc. The Dallas program ended up seeing great academic gains in terms of reading (Headden & McKay, 2015). Fryer (2011) wrote that “providing incentives for inputs [reading books], not outputs [getting good grades, performing well on tests], seems to spur achievement” (Headden & McKay, 2015, p. 5). Strategies that boost extrinsic motivation seem to succeed because they allow students to have control over their learning (Headden & McKay, 2015). The Dallas program had better results because students were free to choose what they read. Money as an incentive for the Dallas program were used to incentivize engagement in the

process rather than performance (Headden & McKay, 2015).

Even though many educators practice the use of external incentives to either encourage or discourage certain behaviors, many researchers discourage the use of external incentives entirely. Horn and Staker (2014) favor against the use of punishment, rewards, and any other external incentives. Bedell (2013) says these types of activities do not help students learn. Headden and McKay (2015) explain that rewards that enhance motivation can work when they are unexpected such as the first time given, but when they start becoming expected, it reduces intrinsic long-term motivation. Activities that are intrinsically motivating cause an individual to complete the activity out of pure enjoyment and no rewards (Fredericks, 2014). Many students are disengaged in school because classroom tasks are boring and offer limited opportunities for deeper understanding (Fredericks, 2014). Schools must work towards creating experiences for students that gets them to become intrinsically motivated; where they find enjoyment in learning, which is a component of engagement (Horn & Staker, 2014). Research has been conducted to explore how to make classroom tasks and activities more engaging to students (Fredericks, 2014). According to Ryan and Deci (2000) much of the research that has been done deals with intrinsic motivation (as cited in Fredericks, 2014, p. 102). Important components of making these activities and tasks engaging are: challenge, variety, fantasy, meaningfulness, and choice (Fredericks, 2014).

The first component, challenge, explains how activities that are

challenging but can be achieved with reasonable effort, promote engagement (Fredericks, 2014). If activities are too easy, students will not be offered the opportunity to be deeply immersed (Fredericks, 2014). Activities that are difficult are supported by Csikszentmihalyi's (1989) flow theory as well as Deci and Ryan's (2000) self-determination theory. As previously mentioned, flow theory is when there is a match between the difficulty of the activity and the skill level and when a student is experiencing flow, they display a strong sense of attentiveness (Fredericks, 2014; Csikszentmihalyi 1989). Self-determination theory explains that when an activity is challenging it can boost a student's perception of competence which can increase engagement (Fredericks, 2014; Deci & Ryan, 2000). Involving students in "problem solving, addressing real-world issues, creating new ideas, and critically evaluating" themselves can motivate students to see their full potential (Bedell, 2013).

Variety, the second component, clarifies instructional methods that are of a variety can help teachers maintain student engagement (Fredericks, 2014). Research has shown that when activities and tasks are filled with variety it creates higher interest in students which activates affective engagement; it also creates greater effort into learning the content which activates cognitive engagement (Fredericks, 2014; Ames, 1992). If teachers can incorporate more of a variety into their instructional practices a student's engagement can be sustained (Fredericks, 2014).

The third component fantasy illuminates that characteristics of computer

games, like fantasy, have been examined to understand why they are so intrinsically motivating to students (Fredericks, 2014). Teachers can make tasks more engaging by incorporating these aspects of fantasy into their lessons (Fredericks, 2014). Although the use of fantasy within instruction can increase attention within students, this can only be temporary (Fredericks, 2014). Students can get so involved in the fantasy components that it can stray them away from the learning and motivation long term (Fredericks, 2014). Therefore, student activities need to be carefully designed when incorporating the use of fantasy in order to heighten both emotional and cognitive engagement (Fredericks, 2014).

The fourth component of meaningfulness describes that even when promoting diverse and challenging activities, it does not necessarily mean the activities are meaningful (Fredericks, 2014). Students are more likely to learn and retain information when it is linked to their prior knowledge and experiences and provides meaningfulness (Fredericks, 2014). “Educators can increase the meaningfulness of tasks by drawing on students’ prior knowledge and experiences, connecting tasks to real-world situations, and highlighting the importance of tasks for future course selection and career options” (Fredericks, 2014, p. 105). For example, incorporating extracurricular activities into instruction.

In the United States, students are only in school for about seven hours each day which shows that students spend more of their time involved in activities outside of the classroom than activities inside the classroom

(Fredericks, 2014). In order to understand how to engage students within the classroom, it is essential to discuss the things outside of school that can support their learning and engagement as well as things that may be negatively impacting their engagement in the classroom (Fredericks, 2014). Many students participate in school and community-based extracurricular activities (Fredericks, 2014). Feldman and Matjusko (2005) state that studies have shown that students who participate in extracurricular activities have “higher grades, score higher on achievement tests, are more engaged in school, and are more likely to attend college” (as cited in Fredericks, 2014, p. 78). Fredericks (2014) provides a hypothetical case of two students Rachel and Ryan who are profiled as disengaged students at school but display engagement behaviorally, emotionally, and cognitively in settings outside of school. The question that is raised is why are they disengaged in school but engaged in other settings? (Fredericks, 2014) One way researchers have answered these questions is by using experience sampling methods (ESM) (Fredericks, 2014). This experiment provides students with a beeper to wear for a week and are randomly beeped; when they are beeped, they report on what they are doing and how they are feeling during that moment (Fredericks, 2014). Utilization this technique has proven that classrooms are lacking engagement within students, especially in classrooms where the instruction is more teacher-directed and activities are passive (Fredericks, 2014).

Fredericks (2014) also provides an example of how a teacher at a school was able to get through to a difficult student using sports. The student was

disruptive in class, struggled with reading, and had negative interactions with teachers (Fredericks, 2014). The teacher, however noticed that the student would have a light in his eyes when he would speak about soccer (Fredericks, 2014). In response to this, the teacher began to provide the student with the sports page from newspapers to engage him in silent reading during class (Fredericks, 2014). With this intervention, the student became less disruptive and more receptive towards teachers (Fredericks, 2014). Fredericks (2014) elaborates that if teachers communicate to administrators the impact of extracurricular activities on a students experience in the classroom it can become truly beneficial towards the students.

For the final component of choice that Fredericks (2014) refers to, Cordova and Lepper (1996) explain that when provided with a choice, a student will have higher levels of “persistence, enjoyment, intrinsic motivation, and learning” (as cited in Fredericks, 2014, p. 104). Some choice opportunities within the classroom may include: choosing what to study, read, or write; choosing how to solve a problem; choosing what assignments to complete; and choosing what rules should be implemented in class and what consequences should be in place when a rule is broken. Richardson (2016) reiterates that there are huge advantages that come from students who are given the opportunity to choose what they want to study. As explained in the self-determination theory this autonomy that is being experienced can increase student engagement (Fredericks, 2014; Deci & Ryan, 2000).

In addition to Fredericks (2014) components, Bedell (2013) adds that fostering relationships, collaboration, and using technology can also cultivate student engagement. Making positive connections in the classroom through icebreakers, pair and share exercises, small group discussions, self-disclosure, and reaching out to students to point out their strengths and build their efficacy can increase engagement in learning (Bedell, 2013). Collaboration and having substantive conversations can increase their involvement and motivation as well (Bedell, 2013). Additionally, Technology can be used in a variety of ways to promote engagement. Using what students are into today, such as social media, can get them involved in their learning (Bedell, 2013). Students can showcase their work, teach other students, and collaborate all while using technology. Educating students based on their interest will not only improve their engagement but also make learning fun (Bedell, 2013).

Another component not previously mentioned which also can promote engagement in the classroom is physical activity (Doussett, 2015). Incorporation of physical activity to the school curriculum has also shown to improve on task behavior and engagement within students (Doussett, 2015; Mahar, Murphy, Rowe, Golden, Shields, & Raedeke, 2006; Howie, Beets, Pate, 2014). Mahar et al. (2006) observed on-task behavior before and after a classroom physical activity break and found an increase with on-task behavior within students. Howie et al. (2014) found that with just 10 minutes of classroom physical activity, on task behavior was improved. Doussett (2015) found that a fitness intervention

program helped alleviate barriers for student engagement. Her study included two intervention teachers who incorporated the fitness intervention in their classroom and two other comparison teachers. The intervention teachers each had 22 students within their class and the other two comparison teachers had 21 and 24 students in their class. The data was collected through pre and post surveys, behavior logs, interviews, a mid-point check in, and a question and answer session. With this data, it concluded that activity bursts from this fitness intervention program helped eliminate barriers and increase student engagement (Doussett, 2015). With the barrier of not enough teacher-to-student feedback, the activity bursts that the fitness program provided was viewed by students as a reward which provided that immediate feedback (Doussett, 2015). Another barrier was the struggle with the coursework and the activity bursts gave students a break from the coursework as well as helped them focus (Doussett, 2015). The activity bursts also helped alleviate the barrier of coming to class riled up from recess by calming and bringing them back together after recess (Doussett, 2015). Finally, the activity bursts also helped with the barrier of sitting down too much during the day by allowing them to get their wiggles out (Doussett, 2015). It is evident from this study (Doussett, 2015), that physical activity is linked to increased student engagement.

Summary

In summary, the review of the literature examined the themes relevant to

engagement and flexible seating. To begin, the literature review discusses how learning environments affect the way we think, feel, and behave (Anthes, 2009). Learning environments should also meet the need of each individual learner (Limpert, 2017). This includes the seating designs in which they sit. The literature review explains how designs of chairs and seating styles are an important element in the learning environment (Espey, 2008; Harvey & Kenyon, 2013). Studies have shown that when a person is seated 86% of their weight is supported by the chair, which illustrates chairs play an important role in supporting weight (Harvey & Kenyon, 2013). Sitting in fixed tables and chairs affects the development of musculoskeletal disorders, posture, and other health-related concerns (Thariq, Munasinghe, & Abeysekara, 2010). Brain activity is also reduced when sitting inactive for a while (Breithhecker, 2006). Seating designs should not be a one-size-fits-all when it is known that times are changing and that there really is no one-size-fits-all in education (Kennedy, 2017). Providing different seating types in a classroom can be accommodating to meet the needs of individual students (Kennedy, 2017). Having (2017) explains how teachers have begun to incorporate a new trend inside their classrooms called flexible seating. Flexible seating is where traditional classroom furniture is replaced with tables and chairs of various shapes and sizes. According to the Department of Education (2016) flexible furniture is a must to support the active learning of students which can cause an increase in engagement compared to traditional classroom learning spaces.

The literature review goes into defining what engagement is and how educators are striving to reach engagement within their students to increase their learning. Bedell (2013) emphasized that engagement involves a holistic view of what students do, think, and feel. Schlechty (2011) explained that there are four components that characterize a student who is engaged. These components are: attentiveness, commitment, persistence, and value. Schlechty (2011) also described five ways students may respond regarding engagement of a task. They are: rebelling, retreatism, ritual compliance, strategic compliance, and engagement. Conner and Pope (2013) identified that engagement within students in learning is declining as students move through school. Even in high performing schools students are being identified under Schlechty's definition as demonstrating ritual or strategic compliance.

Like Schlechty (2011) explains how there are components involved in a student's engagement, many researchers have also found that full engagement should be viewed more holistically encompassing different components as well. Engagement in school encompasses a student's behavioral, affective, and cognitive involvement and commitment to learning (Jimerson et al., 2003; Fredricks, J. A. et al., 2004; Yang, P., & Lamb, M., 2014).

The literature review also revealed several benefits of student engagement. Studies have associated student engagement with positive physical, social, and psychological development (Conner & Pope, 2013). Bedell (2013) explains that students who experience engagement "learn more, develop

greater critical thinking skills, and are more satisfied with school” (p. 10). Bedell (2013) also adds that other benefits include “interpersonal skills, social awareness, and establishing one’s identity” (p.10). More research has established that engagement increases attention and focus and promotes meaningful learning experiences (University of Washington, 2019, para. 1).

A few theories that are essential in understanding engagement were outlined in the literature review as well. The self-determination theory developed by Deci and Ryan (1985) explains that when a student is self-determined or motivated they will experience a desire to fulfill some basic needs which include autonomy, competence, and relatedness when engagement is sought within an activity. Flow theory is discussed as a psychological state when a person is immersed in a feeling of energized focus, involvement, and enjoyment (Csikszentmihalyi & Lefevre, 1989; Moneta & Csikszentmihalyi, 1996; Gregory & Kaufeldt, 2015). Finally, Choice theory which was developed by Glasser (1998) clarifies that our behaviors are chosen in satisfaction of our five psychological needs: survival, love and belonging, power, freedom, and fun.

Finally, many classroom practices that can promote engagement were highlighted in the literature review. An important classroom practice that is discussed is providing the element of choice within the classroom. When choice is provided in the classroom a student will have higher levels of “persistence, enjoyment, intrinsic enjoyment, and learning” (Fredericks, 2014, p. 104). Evans and Boucher (2015) stated that students must be given meaningful choices in

order for engagement to be fostered. Educators believe that giving students choices and autonomy within instruction is an effective strategy to use to enhance engagement and motivation (Flowerday & Schraw, 2003; Fredericks, 2014).

The review of literature showed there was a gap in the literature. Some researchers recommended for future research to study engagement in the classroom in a holistic view. Others recommended studying student choice and flexible seating qualitatively. Others also recommended to focus in an elementary classroom or a smaller population. One recommended to identify the levels of student engagement within the classroom and for teachers to adjust their practice to improve engagement. Thus, the data collected from this descriptive study can add to the research on how first grade students perceive their engagement when choice with flexible seating is incorporated into their classroom. This study can add to the research on implementing flexible seating as a developing transformation in education to meet the pedagogical needs of educators and better serve 21st century learners.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

The way classrooms look has not changed in decades (Delzer, 2016). Students in classrooms are expected to be problem solvers and make choices independently, but how can this be so when educators are solving their problems and restricting them from choices within the classroom?

Due to this, a decline in student engagement has risen as students advance through school (Conner & Pope, 2013). However, choice within the classroom has been noted as an effective motivational strategy towards engagement (Parker et al., 2017; Flowerday & Schraw, 2003)

Many educators have implemented choice within the classroom through choice of activities, choice of partners, etc. however, for years, no seating choice has been offered to accommodate student activities. Current seating within the classroom is meant for “one size fits all” but as educators it should be known there is no “one size fits all”. If student engagement is truly the desired goal, then educators must adapt right along with our students in our learning spaces. For educational organizations to remain feasible in today’s competitive educational world, they must recognize that learning and pedagogy are changing therefore learning spaces need to support the modern educational practices (Harvey & Kenyon, 2013).

Travis (2017) and Allen (2018) have both addressed this issue with seating design choice, or flexible seating, and its effect on student engagement. Both studies found similar results with an increase on student engagement however neither defined whether this engagement was full engagement including behavioral, affective, and cognitive engagement. This is significant to this current study because as researchers have stated, in order to be fully engaged, all three components must be present. This is essential to educators to know so that they can understand whether flexible seating truly does have students fully engaged or are they just going through the motions. Therefore, this current descriptive research study attempts to examine the perspective of students and their engagement with choice with flexible seating within their classroom. Within this chapter, the specific methodology of the study is described and the sample, setting, data collection, and data analysis are explained thoroughly.

Research Design

A descriptive research design was used. The researcher was immersed in the project as the teacher who implements flexible seating within the classroom. First, the researcher collected data from a general level of engagement survey that was sent via Google Form. It was based on Schlechty's (2011) levels of engagement in relation to a flexible seating environment and engagement. The survey was given to the student participants in the class and helped measure their perception on their level of engagement individually. Due to Covid-19,

surveys were emailed to student and parent emails. Any students who did not have consent or give assent was not delivered or given a survey. Next, the researcher interviewed some students. These interviews were of five students randomly selected from the class. The interviews with these students consisted of questions that learn more about their perception on their flexible seating environment. Due to the age group of the participants, the interviews were semi structured so that if need be the researcher was provided the ability to probe the participants to get more details about their thoughts, feelings, and opinions on their perspective of their engagement. The interviews were done virtually via Google Meet and were also digitally audio recorded with the researcher's personal audio recording device.

All student data including surveys and audio recorded interviews were collected and analyzed by the researcher. All consent and assent forms and data were transferred and stored in the researcher's password protected computer which were locked in the researcher's personal safe in the researcher's home in which the researcher only had access to. Survey responses were downloaded and saved to the researcher's password protected computer. Interviews were voice recorded with the researcher's personal voice recorder and were uploaded to the researcher's personal password protected computer then sent to Rev.com for transcription. All transcriptions were stored in the researcher's password protected computer.

According to McMillan and Schumacher (2010), the methods and which

they are used of qualitative research all depend on the extent of the researcher and their interpersonal skills. Qualitative methods are used to understand people's "beliefs, experiences, attitudes, behavior, and interactions" (Pathak et al., 2013, para. 2). According to Creswell (2013), "Phenomenologists are interested in the analytical and descriptive experience of phenomena by individuals in their everyday world" (p. 251). Therefore, in the process of reviewing various methodologies for qualitative research, the specific qualitative methodology utilized for this study to address the research questions posed, is descriptive research.

Nassaji (2015) states that qualitative and descriptive research is very common in the discipline of education. "The goal of descriptive research is to describe a phenomenon and its characteristics" (Nassaji, 2015, p.129). Descriptive research is more involved with the what rather than the how or why (Nassaji, 2015). In this type of research data is collected qualitatively but can be analyzed quantitatively to determine relationships (Nassaji, 2015).

With this, this study planned to utilize descriptive research as a methodology to describe the phenomenon of flexible seating and relate it to students' perceptions of it with their engagement. This study also planned to connect theory to practice with that of choice theory in the classroom and cultivate professional growth in terms of student engagement.

Research Setting

The research setting took place virtually in a first-grade classroom that incorporates flexible seating. The reason the setting was taken place virtually is due to COVID-19 and schools were closed for the remainder of the 2019-2020 school year. The classroom was from a Title 1 school within a large suburban Southern California school district. According to the California Department of Education (2019), Title 1 is defined as a federal funded program that provides financial assistance through state educational agencies to local educational agencies and public schools with high numbers or percentages of low socioeconomic status to help ensure that all children have a fair opportunity to high-quality education. Since this school was a Title 1 school, this means that 68.1% of the students enrolled within the school received free or reduced lunch. The school had an enrollment of 530 students. Of the 530 students, 378 of them were Hispanic, 78 were White, 44 were African American, 10 were Filipino, seven were Asian, three were American Indian, and 10 identified with two or more races. Within this population 361 of the students were identified as socioeconomically disadvantaged, 81 were English learners, 78 were students with disabilities, 49 were homeless, and eight were foster youth.

Research Sample

I, the researcher, was the teacher of this study. I am employed at the elementary school in which this study took place. I have been teaching for five

years and all five years I have been teaching first grade. According to McMillan and Schumacher (2010), "A sample is the group of subjects from whom data are collected; often representative of a specific population" (p.327). In addition, "a very important consideration in conducting and evaluating research is the size of the sample or the number of participants" (McMillan & Schumacher, 2010, p. 140). Therefore, to consider the importance of a sample size the participants of this study were 26 first grade students. The participants were assumed to have no prior experience with flexible seating. The participants were from a Title 1 school. 10 were female and 16 were male. Seven were considered to be English learners, four had Individualized Learning Plans (IEPs) and were considered special education students, and three identified as McKinney-Vento.

Merriam (1998) explains that "purposeful sampling is based on the assumption that the researcher wants to discover, understand, and gain insight and therefore must select a sample from which the most can be learned" (p. 61). This sample was purposefully selected because the sample comes from a classroom that incorporates flexible seating with choice within a title-1 school. As the teacher researcher of the study it was important to select the sample within the teacher researcher's classroom so that the teacher researcher can understand their students' perceptions on their engagement with flexible seating therefore enhancing their personal pedagogy. Patton (2015) explained that "information-rich cases are those from which one can learn a great deal about issues of central importance to the purpose of the research" (p. 53). The sample

selected for this study was representative for the purpose of the study.

Data Collection

This study included qualitative and numerical data collection methods. Due to COVID-19, data collection was pushed until after the school year and was done during the summer of 2020 virtually. Data was collected through a survey and interviews. Students' perceptions on their level of engagement were assessed through their responses on the survey. Students' perceptions of flexible seating with choice were assessed through the interviews.

The survey that was used to collect data on students' perceptions of their level of engagement was adapted from Schlechty's (2011) theory of engagement. The survey consisted of one question that asks students to pick the statement that best describes their perception on how they feel when doing work in their flexible seating choice. Students had experienced flexible seating with choice all school year long. To the students, flexible seating with choice was known as their "smart spot". Therefore, on the survey it asked the students specifically to pick the sentence that best described how they felt when doing seatwork in their "smart spot" (See Appendix A). Survey statements were modified to fit needs of this study and the targeted population (See Appendix A). Fredericks (2014) recommends using survey tools as ways to assess student engagement. The purpose of the survey was to get a general understanding of the perception of students and their level of engagement in regards to choice

with flexible seating. The purpose of the survey was explained to the principal, students, and parents before and permission to conduct the interviews was collected beforehand.

A randomly selected group of five students participated in virtual face-to-face interviews with the primary researcher. The interviews were semi structured so that if need be the researcher was provided the ability to probe the participants to get more details about their thoughts, feelings, and opinions on their perspective of their engagement. The interview questions were researcher designed, made up of open-ended questions incorporating aspects of choice, student engagement, and flexible seating (See Appendix B). The interviews were audio recorded and transcribed afterwards to promote validity. McMillan and Schumacher (2010) explain using interviews as a method can provide educators the opportunity to obtain multiple meanings of an experience. Patton (2015) adds that to gather phenomenological data a researcher must conduct in-depth interviews with people who have directly experienced the phenomena. The purpose of the interviews in this research study was to unravel students' experience with choice and flexible seating in terms of their engagement and to learn more about their perception with it. The purpose of the interview questions was explained to the principal, students, and parents before and permission to conduct the interviews was collected beforehand.

The purpose of using multiple methods of data collection is for less bias and increased credibility (Lichtman, 2013). This process is known as triangulation

(Lightman, 2013). Researchers validate their findings by using different methods of data collection for evidence (Creswell, 2013).

Data Analysis

According to Patton (2015), “Qualitative inductive data analysis is generating new concepts. Explanations, results, and/or theories from the specific data of qualitative study” (p. 541). Inductive data analysis involves discovering themes, patterns, and categories. The interviews were transcribed using REV, an online transcription service and then were analyzed for common and major themes. During this phase, the researcher had to make sense of what was uncovered in the data to formulate themes or codes (Creswell, 2013). The software NVIVO was used to assist in coding for major themes within student data. NVIVO is a quality software to use to provide depth to a qualitative study through data analysis (Bergin, 2011). The process of using NVIVO to analyze data allowed the researcher to analyze individual themes from the data collected to gain a deeper understanding of how different themes knit together (Welsh, 2002).

Qualitative and descriptive analysis are very common in the discipline of education (Nassaji, 2015). Descriptive research is more concerned with the what rather than the how or why something happens (Nassaji, 2015). The interviews and surveys were analyzed using descriptive analysis to reveal the what in this study. “The goal of descriptive research is to describe a phenomenon and its

characteristics” (Nassaji, 2015). In descriptive research, the data is collected qualitatively, but is often analyzed quantitatively to determine relationships (Nassaji, 2015). Descriptive analysis is appropriate when one wants to describe the perceptions and experiences of a population (Sandelowski, 2000). The process of descriptive analysis gained a deeper understanding of the relationships between the experiences of the sample and findings.

Positionality of the Researcher

It is essential that a researcher reflects on their individual identities and how they those identities affect their research process and its outcomes (Kerstetter, 2012). A researcher should be open and honest on how their beliefs have influenced their research (Holmes, 2010). With this, I have provided a reflection of the identities and beliefs that I hold that influenced my research topic.

The first identity I will reflect on that has influenced my research is my identity as a minority Latina. I want to discuss this identity as it relates to my research in such, I am seeking how flexible seating affects the engagement of Title 1 students specifically. These students tend to primarily come from low socioeconomic areas which also tend to consist more of minority groups. I grew up in a low-income community and attended Title 1 schools. The neighborhood I grew up in was nothing fancy. It was rich in its Hispanic culture however, I remember the schools being pretty basic and traditional. The schools I attended did not enrich the curriculum towards their community population. I remember

nothing was really exciting about school. There was that every so often fun activity, trip, or assembly, but nothing very consistent throughout the year. With the excitement and engagement I observed from my very own Title 1 identified students with flexible seating, I became curious on how it would affect students from low socioeconomic schools.

The second identity I would like to reflect on that influenced my research is the identity of an educator. I am an educator that, just like every other educator, looks for best practices to be implemented within the classroom. Instructional strategies and how they are implemented make a difference in the classroom and how students learn. There are so many “research based” practices out there but really how “research based” are they? There is a new phenomenon out there that many educators are implementing because it is labeled as “research based”. This is the phenomenon of flexible seating. There is very little research out there on this new phenomenon, therefore this has interested me in exploring the topic even more.

The next identity I would like to discuss that influenced my research topic is being an educator that implements flexible seating. I was inspired by flexible seating once I saw it becoming a trend on social media by other teachers. I thought, “This looks cool! This looks interesting!” This interest intrigued me. Once I implemented it, I became curious in seeing how students reacted to this new type of seating environment. Since the application, students have displayed much engagement. However, were they fully engaged? Students displayed

behaviorally that they were engaged by being on task and paying attention, but were they really learning, and did they feel connected to the work? How did the students feel about their engagement with flexible seating? This triggered my questions on what are students' perception of their level of engagement with flexible seating and also their perception of flexible seating with choice.

The final identity that influenced my research is of an educator that believes in an autonomous classroom. I am a firm believer that when students are offered independence in the classroom, they not only develop responsibility for themselves, but they are also more engaged in their learning. I believe this because when students feel they have freedom in their learning they develop a sense of relevance. This belief motivated my research to see how choice with flexible seating really does affect a student's engagement.

I believe with this positionality statement I have created, I have displayed what Sarah Tracy calls "self-reflexivity" (2010). "One of the most celebrated practices of qualitative research is self-reflexivity, considered to be honesty and authenticity with one's self, one's research, and one's audience" (Tracy, 2010). I feel identifying my subjectivities has allowed me to become more aware and honest with my research as I step into the field. By practicing self-reflexivity, it has permitted me to determine my own authenticity with my topic. Throughout my study, I will continue with authenticity and seek the main purpose with full sincerity.

Summary of the Chapter

In summary, the purpose of this study was to examine students' perspectives of their engagement when seated in flexible seating with choice. A descriptive research design was utilized. The setting took place in a first-grade classroom from a title 1 school within a Southern California school district. The participants were 26 first grade students within this first-grade class. Data collection was during the summer of 2020. Data was collected through interviews and surveys. Data analysis consisted of analyzing and coding for common and major themes. Validity was evidenced through the triangulation. Presentation of data and an analysis of the findings are detailed in Chapter four. In Chapter Five, the conclusions and recommendations for further research are addressed.

CHAPTER FOUR

RESULTS

This chapter provides an in-depth analysis of the research, data collected, and findings based on exploring students' perceptions of flexible seating and their engagement. To conduct this study, the researcher surveyed and interviewed a class of first graders from an elementary school located in Southern California. In addition, the purpose, research questions, methodology, population/sample, and presentation of data are exhibited in this chapter.

Purpose

The purpose of this descriptive study was to examine students' perspectives of their engagement when seated in flexible seating with choice.

Research Questions

This study was guided by two central research questions designed to explore first grade students' perceptions of flexible seating and their level of engagement within their classroom setting.

1. What are students' perceptions of flexible seating with choice?
2. What are students' perceptions on their level of engagement with flexible seating with choice?

Population and Sample

The population selected to participate in the research study was composed of 26 first grade students. Of these students, 10 were female and 16 were male. Seven were considered to be English learners, four have Individualized Education Plans (IEPs) and are considered special education students, and three are identified as McKinney-Vento. These students attended a Title 1 school in the located in Southern California. According to the California Department of Education (2019), Title 1 is defined as a federal funded program that provides financial assistance through state educational agencies to local educational agencies and public schools with high numbers or percentages of low socioeconomic status to help ensure that all children have a fair opportunity to high-quality education. Since the school where the study took place is a Title 1 school, this means that 68.1% of the students enrolled within the school receive free or reduced lunch. Out of the 26 students asked to participate in the study, 16 provided consent and assent to participate in the study. The participants of the study consisted of six females and 10 males. Of the participants who provided consent and assent four were considered to be English learners and three have Individualized Education Plans (IEPs). The research study entailed purposeful sampling by surveying the whole population sample of 16 students, then through random sampling 5 out of the 16 students were selected to be interviewed. Any identifying information such as names of students were omitted from the presentation of the findings to maintain confidentiality. Table 1 provides more

information on the demographics of the participants. The researcher was able to ascertain demographics because the researcher was also the teacher of the class being studied and had access to this information.

Table 1. Participant Demographics

Characteristic	Frequency	Percent
Gender		
Male	10	63%
Female	6	37%
Race/Ethnicity		
African American	1	6%
Hispanic	13	81%
White	2	13%
English Learners (EL)		
English Learner	4	25%
Non English Learners	12	75%

Presentation of Data

Data was collected beginning June 2020 and concluded July 2020.

Students were introduced to types of seating at the beginning of the 2019-2020 school year and had all year to experience the different seating options and develop their perceptions of flexible seating and their level of engagement with it. The study fills a gap in the literature because throughout the literature student perceptions were not studied especially in terms of their perceptions towards flexible seating and their perception of their level of engagement with flexible

seating. The findings in this study are provided below, along with an analysis of the responses to each research question.

Research Question 1

1. What are students' perceptions of flexible seating with choice?

To answer this question data was collected through interviews of five different students randomly selected from the participants. The following are the interview questions that were asked to the students:

Do you like how you are able to sit in your class? Explain.

- a. What do you like or not like about it?
- b. What could make it better?

How do you feel about the place(s) you sit in class?

- a. Does it help you learn? Explain.

The interviews were semi structured so that if need be the researcher was provided the ability to probe the participants to get more details about their thoughts, feelings, and opinions on their perspective of their engagement. These interviews displayed five major themes that ranged from a frequency of 16-33 and were identified among the five interview participants. Table 2 identifies the themes that emerged from the perception's students had on flexible seating. The term "references" illustrated on table 2 implies how many times the theme was referenced by participants and the term "frequency" indicates the frequency of the word relative to the total words counted in the interview.

Table 2. Themes Emerged from Student Interviews

Theme	Reference	Frequency
Comfort	4	25
Freedom of Choice	3	16
Movement	5	18
Focus	2	33
Feelings Towards Flexible Seating	13	25

Comfort

A theme that was identified when students were describing their perception on flexible seating was comfort. In this study, this theme was expressed four times within one of the student participants. The frequency count of this theme was 25. Student 9 expressed that he felt “relaxed” when asked how he felt about the flexible seating spaces he got to sit in. Student 9 added that he felt “relaxed” because the seats were “comfortable” especially the “bouncy balls”.

Study results reveal that comfortable furniture promotes motivation and satisfaction with a learning environment (Breithhecker, 2006). When a student is uncomfortable, they become distracted and unproductive (Smith System, 2019). Comfortable furniture ultimately ensures increased performance and productivity (Breithhecker, 2006). Thus, flexible seating does provide the benefit of promoting comfort (Smith System, 2019).

Freedom of Choice

A theme that was discussed by two out of the five student participants was freedom of choice. It was referenced three times and the frequency count for this

theme was 16. Student 13 explained that she liked that she was able to “go wherever [she] wanted” with the flexible seating choices. Student 9 added that he also liked that he “got to go wherever [he] want[ed] to” with the flexible seating choices as well. These responses are noteworthy because even though the researcher did not use the word “choice” in the interview question, students expressed that they enjoyed being able to go wherever they wanted indicating choice. This is important for this study as it centers on the idea of choice.

Research supporting this theme states that providing choice can foster engagement within a student (Deci et al., 1996; Evan & Boucher, 2015). When students are given choice within their environment, they feel empowered (Smith System, 2019). Burgeson (2017) explains that flexible seating increases student engagement due to student choice in seating option. Flexible seating gives students that power to choose where they get to complete their work and allows them to change their seating choice as needed (Smith System, 2019). Therefore, providing furniture and seating choices for students influences the way they interact and can help them meet their freedom need (Anthes, 2009; Erwin, 2004).

Movement

Another theme that was identified amongst the participants was the theme of movement. It was referenced five times by three of the student participants and had a frequency of 18. Student 1 communicated that he “was able to shake around and bounce on the bouncy ball” when answering why he felt the flexible seating choices helped him learn. When student 13 was asked if she felt the

flexible seating choices helped her learn, she stated “yeah... because [I] can move and think about [my answer]”. Student 11 also responded to the same question declaring that the flexible seating choices helped her learn because they kept her “energized” and she was be able to “move”.

According to research, alternative seating described as seating equipment of different styles, supports a students’ need for movement or body sensation (Universal Design for Learning, 2019). All the movement that occurs with flexible seating promotes physical activity, which is linked to higher self-esteem, reduced anxiety, higher academic performance, better health, and improved behavior (Smith System, 2019; CDC, 2010; Doussett, 2015).

Focus

The theme of focus was also identified amongst the participants. It was referenced twice by two of the participants and had a frequency of 33. The researcher followed up with student 2 on why she felt it was easier to learn with flexible seating and student 2 conveyed that “they helped [her] focus”. Student 9 also relayed the message that the flexible seating choices helped him learn because he “focused more”.

The UDL supports this theme by stating that alternative seating “can help some students maintain focus while working” (Universal Design for Learning, 2019). Hyche and Maertz (2014) state that flexible seating provides the benefit of sensory needs to students which helps children focus and process information.

Grimm (2020) also explained that using flexible seating helps students focus while having less off-task behaviors.

Feelings Towards Flexible Seating

Feelings towards flexible seating was another theme identified amongst the participants. All five student participants referenced it for a total of 13 times and it had a frequency of 25. Student 11 expressed her feelings towards the flexible seating choices as “happy” because of the “seats [she gets] to sit in”. Student 2 also stated that her feelings towards the flexible seating choices made her feel “happy” but “because it will help [her] learn, and [she] will get better grades”. When asked why she believed the flexible seating choices helped her learn student 2 stated, “because it's fun, but it's also easier to learn”. Student 13 had a similar response by saying she felt “excited... because [she] was happy to learn on them”. Student 1 also said the flexible seating choices made him feel “excited” but “because, in kindergarten, [he] didn't get the [flexible seating choices and]... just sat in a regular chair and when [he] just saw [the flexible seating choices he was] like, what?” This response illustrates that student 1 was excited for something different than what he was used to seeing in kindergarten. Student 9's response towards his feelings of flexible seating was that he felt “relaxed” because the seats were “comfortable”.

Research that supports this theme is flow theory. Moneta and Csikszentmihalyi (1996) define flow as a “psychological state in which the person feels simultaneously cognitively efficient, motivated, and happy.” (p. 277). The

term “flow” was defined by Gregory and Kaufeldt (2015) as “the mental state that is achieved when a person performing an activity is immersed in a feeling of energized focus, full involvement, and enjoyment in the process of the activity” (p. 127). Flow is described as people being “fully immersed in what they are doing,” and when a person is in flow, they are “completely involved and absorbed” (Bray & McClaskey, 2014, p. 41). Bray and McClaskey (2014) identified flow in relation to engagement; whereas educators can provide opportunities for students to be in a state of flow, students will be more motivated and engaged towards the activity.

Research Question 2

2. What are students’ perceptions on their level of engagement with flexible seating with choice?

To answer this question data was collected using a one question survey based on Schlechty’s (2011) level of engagement theory. The one question survey asked students to pick a statement that best described their perception on their level of engagement within flexible seating. Wording was adjusted for more “kid friendly” wording due to the age group of the participants (see Table 3 and 4 below). Each statement represented a different point on a five-point likert scale. The statement “I do my seatwork because I see it as important and believe I will learn by doing it” was given a score of 5. The statement “I do my seatwork because my teacher told me to for a good grade” was given a score of 4. The

statement “I do my seatwork because I do not want to get in trouble, even though I see my seatwork as not important” was given a score of 3. The statement “I think about doing other things when doing seatwork because I do not think my seatwork is important” was given a score of 2. Finally, the statement “I misbehave when doing seatwork because I do not think my seatwork is important” was given a score of 1. All statements are displayed in table 3 with their given scores and their relation to Schlechty’s (2011) levels of engagement.

Table 3. Level of Engagement Score

Statement	Score	Schlechty’s Level of Engagement (2011)
I do my seatwork because I see it as important and believe I will learn by doing it	5	True Engagement
I do my seatwork because my teacher told me to for a good grade	4	Strategic Compliance
I do my seatwork because I do not want to get in trouble, even though I see my seatwork as not important	3	Ritual Compliance
I think about doing other things when doing seatwork because I do not think my seatwork is important	2	Retreatism
I misbehave when doing seatwork because I do not think my seatwork is important	1	Rebellion

Schlechty's (2011) levels of engagement explain how a student may respond regarding engagement of a task. A student who is exhibiting rebellious behavior refuses to comply and chooses to use their attention elsewhere, which can often lead to disruption (Schlechty, 2011). When demonstrating rebellion, students are more likely to reject their task at hand and the value the work may suggest (Schlechty, 2011). The next level of engagement is retreatism which manifests itself by the student doing nothing and bothering no one. (Schlechty, 2011, p. 32). When a student is retreating, they develop ways to hide their behaviors of noncompliance (Schlechty, 2011). Above that is ritual compliance. When a student is in the state of ritual compliance, the student only does the things that are needed to be done. A student will complete the bare minimum in order to avoid consequences (Schlechty, 2011). Next is strategic compliance. In strategic compliance, the student considers the task to be of little value, however, will associate their attention with the outcomes such as grades (Schlechty, 2011). Students in strategic compliance will spend more time and energy required to obtain the outcome or reward (Schlechty, 2011). At the furthest end of the scale is full engagement which refers to a student who finds meaning and value in the task and will persist in times of difficulty (Schlechty, 2011). A student in full engagement will volunteer their resources which demonstrates their commitment to the work and places moral value in it (Schlechty, 2011).

Schlechty (2011) explains that there are four components that characterize a student who is engaged. One of these components is

attentiveness (Schlechty, 2011). Another valuable factor is commitment (Schlechty, 2011). Persistence is another crucial element (Schlechty, 2011). Finally, for a student to be engaged they must find meaning and value in the tasks they do (Schlechty, 2011). All four of these components must be present in order for a student to be fully engaged (Schlechty, 2011). Throughout all levels of engagement, it is seen that the extent of all these components differ compared to one another. Table 4 exhibits Schlechty's levels of engagement within students along with their attention and commitment levels.

Table 4. Schlechty's Levels of Engagement

Level of Engagement	Attention	Commitment
Engagement- The student associates the task with a result or product that has mean and value for the student.	High	High
Strategic Compliance- The task has little inherent or direct value to the student, but the student associates it with outcomes or results that do have value to the student (grades).	High	Low
Ritual Compliance- The student is willing to expend whatever effort is needed to avoid negative consequences. The emphasis is on meeting minimum requirements.	Low	Low
Retreatism- The student is disengaged from the task and does not attempt to comply with its demands but does not try to disrupt the work or substitute other activities for it.	None	Low
Rebellion- The student refuses to do the work, acts in ways to disrupt others, or substitutes tasks and activities to which he or she is committed.	Diverted	None

Table 5 below displays the scores students received from the one question survey. Furthermore, table 6 exhibits the frequency that students responded towards a certain statement. 75% of student participants responded that they do seatwork because they see it as important and believe they will learn by doing it. 18.8% of student participants responded that they do seatwork because their teacher told them to for a good grade. 6.3% of student participants responded that they think about doing other things when doing seatwork because they do not think their seatwork is important.

Table 5. Engagement Score by Student

Student	Engagement Score
1	5
2	5
3	2
4	5
5	5
6	5
7	5
8	4
9	5
10	5
11	5
12	4
13	5
14	5
15	5
16	4

Table 6. Measures of Frequency of Student Responses on Perception of Engagement Level with Flexible Seating

	Frequency	Percent	Valid Percent
I misbehave when doing seatwork because I do not think my seatwork is important.	0	0.0	0.0
I think about doing other things when doing seatwork because I do not think my seatwork is important.	1	6.3	6.3
I do my seatwork because I do not want to get in trouble, even though I see my seatwork as not important.	0	0.0	0.0
I do my seatwork because my teacher told me to for a good grade.	3	18.8	18.8
I do my seatwork because I see it as important and believe I will learn by doing it.	12	75.0	75.0

With these frequencies, this illustrates that 12 of the student participants perceive their level of engagement with flexible seating to be considered “full engagement” when relating to Schlechty’s (2011) levels of engagement. Therefore, these 12 students associate any task they do within their flexible

seating choice with a result that they find meaning and value in (Schlechty, 2011). These students' attention and commitment levels are both high which means that they pay attention, focus, and use their own time and effort voluntarily to support themselves in completing the task assigned (Schlechty, 2011).

There were three student participants who perceived their level of engagement with flexible seating to be "strategic compliance". These students find their tasks when seated in flexible seating to have little direct value, but they associate it with outcomes that they do value, which in this case is their grades. The attention and commitment levels for these students are high for attention and low for commitment which suggests that they pay attention and focus on getting their work done, but they do not voluntarily put forth their time and effort (Schlechty, 2011). Therefore, these students will focus on their task when seated in flexible seating, but only because they want to get a good grade. Thus, they will not voluntarily put extra time and effort into their tasks since they do not find further value in the tasks besides receiving good grades.

The one student who perceived their level of engagement as "retreatism" disengages from the task when seated in flexible seating and does not attempt to fulfill it. However, this student does not try to disrupt the task by doing other things. This student's attention towards the task does not exist and their commitment level is very low. In other words, the student does not pay attention or focus on completing tasks while seated in flexible seating, and they scarcely volunteer to put forth time and effort towards the task.

The other two responses available were not selected by any of the participants, therefore analysis of students and the levels of “rebellion” and “ritual compliance” cannot be examined.

Choice Theory and the Data

Studies have shown the impact learning environments have on student engagement (Haghighi & Jusan, 2012; Castellucci, Arezes, Molenbroek, Bruin, & Viviani, 2016; Grimm, 2020). Survey and interview data from student participants of this study revealed how students perceived their learning environment of flexible seating with choice and their engagement level. Choice theory by William Glassner (1998) was the theoretical underpinning for this study. Glassner’s choice theory explains that all our behaviors are chosen to satisfy our five psychological needs: survival, love and belonging, power, freedom, and fun. This study focused on the freedom need of choice theory. The freedom need consist of two types: freedom from and freedom to (Erwin, 2004). Within the classroom, freedom from refers to providing students with the opportunity to experience a needed change or avoid something unpleasant (Erwin, 2004). Freedom to in the classroom provides the students with the opportunity of choice (Erwin, 2004). This study looked through a freedom to lens to examine the importance of choice within flexible seating on student engagement.

The student participant answers to the interviews display that their freedom need was being satisfied. Students expressed within the interviews that

they liked being able to go wherever they wanted. This supports the freedom to aspect within the freedom need of Glassner's (1998) choice theory.

The student participant answers to the survey display that majority feel that they are experiencing true engagement with their flexible seating choice. Even though the students answered the survey question in relation to their flexible seating choice, Glassner's (1998) choice theory cannot be applied here because the survey prompt lacked a focus on the "choice" with flexible seating and rather focused on the students' perception on their level of engagement while sitting in their flexible seating.

Additional Findings

Through the data collection and analysis process of this study, additional findings surfaced. These findings correspond with the student participants who had Individualized Education Plans (IEPs). These students who had IEPs were students who fell within the Autism Spectrum Disorder (ASD).

The two students who participated in the study and fell within the spectrum did complete the one question survey but were not randomly selected for the interview. As seen in table 5, student 8 scored a four and student 10 scored themselves a five. Therefore this indicates that student 8 believed that they do their seatwork because their teacher told them to for a good grade and student 10 believed that they do their seatwork because they see it as important and believe they will learn by doing it.

Looking at table 3, it is seen that student 8's perception of their level of engagement with flexible seating falls within the level of strategic compliance under Schlechty's (2011) levels of engagement. Student 10's perception of their level of engagement with flexible seating falls within the level of true engagement under Schlechty's (2011) levels of engagement. Table 4 provides more detail for these students' perception of their level of engagement.

Student 8 falling within the level of strategic compliance believes that the tasks they face have little inherent or direct value to them but associates it with the outcomes or results that they do value, in this case grades. The attention and commitment levels for this student are high for attention and low for commitment which suggests that the student pays attention and focuses on getting their work done, but does not voluntarily put forth their time and effort (Schlechty, 2011). Therefore, this student will focus on their task when seated in flexible seating, but only because they want to get a good grade. Thus, they will not voluntarily put extra time and effort into their tasks since they do not find further value in the tasks besides receiving good grades.

Student 10, falling within the level of true engagement, associated the tasks they face with a result or product that has meaning and value to them. This student's attention and commitment levels are both high which means that they pay attention, focus, and use their own time and effort voluntarily to support themselves in completing the task assigned (Schlechty, 2011).

These findings are interesting as past research states that the use of

flexible seating within students of special needs found improvements in engagement (Bagatell et al., 2010; Schwartz, 2004; Watling, Deitz, Kanny, & McLaughlin, 1999). These findings would support past research if data was collected prior to the students being exposed to flexible seating and growth in student engagement was exhibited. These findings could spark future research in comparing student engagement data prior to flexible seating and after flexible seating within special needs students.

Validity of the Data

According to McMillan and Schumacher (2010), "Validity in qualitative research means the extent to which the data is plausible, credible, and trustworthy; and thus can be defended and challenged" (p. 332). Carter et al. (2014) state that triangulation is when multiple methods are used in qualitative research to develop a thorough understanding of a phenomena. Triangulation has also been viewed to test validity through the merging of information from different sources in qualitative research (Carter et al., 2014).

To ensure validity within the methods, interviews were recorded and transcribed after the interview. The purpose of audio recording the interviews was to increase accuracy of the data collected (Patten, 2012). Interviews also consisted of open-ended questions. Patton (2015) emphasized that open-ended questions within interviews probes in-depth data on people's experiences. To safeguard validity with the survey, content validity was used as a guide. Markus

and Smith (2010) explain that “content validity refers to the extent to which the items on a test are fairly representative of the entire domain the test seeks to measure” (p. 239). Therefore, the researcher-designed survey based on Schlechty’s (2011) levels of engagement was created to measure students’ perceptions on their level of engagement within flexible seating with choice. To further ensure validity with the survey, the survey was adapted from a credible source: Schlechty’s (2011) levels of engagement. The questions and statements were modified to fit needs of this study and the targeted population.

Even though methodological triangulation was established by using multiple methods and each method was valid, each method was individually linked to answer one of the research questions presented. Therefore, more research is needed because the triangulation of the data for the study would need to be validated. The research from another study that incorporates multiple methods per research question would be able to validate the results by merging the information together to draw similar conclusions (Carter et al., 2014).

Summary of Findings

This chapter provided an in-depth analysis of the research, data collected, and findings based on examining students’ perceptions of their engagement when seated in flexible seating with choice. To conduct this study, the researcher surveyed and interviewed 16 first grade students from a first grade class in a Title 1 school located in Southern California. This study was guided by the two central

research questions. The first being, what are students' perceptions of flexible seating with choice? The second, what are students' perceptions on their level of engagement with flexible seating with choice?

Several themes emerged from the data collected in this study based on the perceptions of students and their engagement when seated in flexible seating with choice. These themes included comfort, freedom of choice, focus, movement, and feelings towards flexible seating. Additional findings within students with special needs was also highlighted. Chapter five of this study will present conclusions based on the findings and recommendations for future research in this topic.

CHAPTER FIVE

RECOMMENDATIONS AND CONCLUSIONS

The purpose of this descriptive study was to examine first-grade students' perspectives of their engagement when seated in flexible seating with choice. This descriptive study consisted of a survey to measure students' perceptions of their engagement level with flexible seating and interviews to describe even further their perception of flexible seating. The target population based on purposeful sampling consisted of an entire first-grade class from a Title 1 school within Southern California. The research study entailed 16 first grade student participants that had consent and gave assent. This study was guided by two central research questions: What are students' perceptions of flexible seating with choice? What are students' perceptions on their level of engagement with flexible seating with choice? The researcher provided a survey to measure the students' perceptions on their level of engagement with flexible seating and aligned the survey with Schlechty's (2011) levels of engagement theory. The researcher also conducted semi-structured interviews. The researcher aligned the interview questions with the research questions to obtain rich data that was relevant to the purpose of the study. The researcher descriptively analyzed the survey and coded the interview responses into themes that corresponded with the research questions and the purpose of the study. Two types of data were collected and analyzed to triangulate the data and to verify consistency of the

findings. In this chapter, implications for action, recommendations for further research, and limitations are included.

Implications for Action

The conclusions drawn from the major findings of this study led to the configuration of the implications for action. The following actions need to be considered by all stakeholders to meet and support the diverse academic and social needs of today's diverse student population.

Implication 1: Teacher Training on Flexible Seating.

Classroom management plays a big role in the successful implementation of flexible seating (Gonzales, 2017; Tucker, 2017). Walker (2016) explains that educational needs cannot be met by simply adding flexible seating options in classrooms. Flexible seating is a tool to support educational needs that need to be well managed to make learning for engaging (Walker, 2016). Therefore, teachers should be provided with professional development opportunities on how to effectively implement flexible seating within their classrooms. This can be done through staff meetings led by an experienced teacher who has implemented flexible seating successfully. Also, during Professional Learning Communities (PLCs), grade levels could do their own research on the benefits and keys to implementing flexible seating. Finally, teachers that are really interested in implementing flexible seating should be given the opportunity to observe a teacher who executes it well.

Implication 2: Funding for Flexible Seating.

To successfully implement flexible seating within classrooms, it will cost quite a bit of money. Funding is a major factor when purchasing flexible seating furniture that is durable, long-lasting, and safe. Many teachers who do incorporate flexible seating within their classrooms pay for it out of their pockets. Therefore, it is important for teachers to work with school site administrators to allocate funding in the budget for flexible seating. A district committee could be formed to study the impact of flexible seating and what funding is necessary. Teachers could also get funding for flexible seating by applying for grants or through stipends.

Implication 3: Policies on Flexible Seating.

The Department of Education (2016) states that flexible seating is designed to support active learning in students and is a must for a collaborative learning space. When a classroom is designed to support the active learning of students, an increase in engagement occurs compared to the traditional row by row classroom seating design (Department of Education, 2016). With this coming from the Department of Education, why is it that no seating choice continues to not be offered to accommodate student activities? Local, state, and federal governments need to enact policies where flexible seating is incorporated into classrooms and schools. Policies that provide students with the opportunities of movement to support active learning, whether in classrooms or a location within schools, can assist in increasing engagement. Creating policies towards

increasing engagement can hold local, state, and federal governments accountable in supporting active learning within students.

Recommendations

The following recommendations were made for further research based on the findings and conclusions of this study.

Recommendation 1: Larger Population/Sample

Based on the findings and conclusions, it is recommended that a larger number of students be studied. In a future study it is suggested to study the perceptions of students in a larger context. Examining the perceptions of students in a larger setting, such as an entire grade level, multiple grade levels, or even an entire school can give more in-depth data and provide educators a better look on how students view their engagement with flexible seating.

Recommendation 2: Upper Grade Level/Secondary Student Perspectives

It is suggested to conduct a study on the perceptions of upper grade level and/or secondary students and flexible seating. The data collected will provide in-depth information on how students of older ages view their engagement with flexible seating. If viewing data on older students shows that students view their engagement with flexible seating positively then this possibly could decrease the high school dropout rate. Walters (2016) explains that students tend to drop out due to their lack of engagement, therefore if educators can create an engaging

learning experience for these students, it can lead to reduced dropout rates and increased graduation rates.

Recommendation 3: Perspective of Students with Special Needs

It is recommended to conduct a study that focuses on the perspectives of students with special needs. This study had additional findings that unveiled a couple of special needs students' perceptions on their level of engagement therefore, future research should study a greater population of students with special needs to get a better generalization of special need student perception on flexible seating. A comparison study of special need students' perspectives prior to flexible seating as well as after is also recommended.

Recommendation 4: Parent Perspectives

It is suggested that the perceptions of parents on flexible seating be further researched. The experiences and stories of the parents will provide rich information for educators to make appropriate decisions on learning environments that meets the needs of the students. This can also build stronger home to school relationships and partnerships with parents and school staff.

Recommendation 5: Teacher Perspectives

Another recommendation for future research would be to study the perception of teachers on flexible seating. There is a growing need for teachers to implement research-based instructional practices to help promote engagement (Ivory, 2017). But do teachers really feel that flexible seating does promote student engagement? Teachers are the experts in innovative approaches to

education (Dintersmith, 2018). Flexible seating is a step towards innovation (Bolling, 2020). Teachers experiences with flexible seating should be examined to see if students really are engaged with flexible seating.

Recommendation 6: Comparison Study

Comparing the data of a non-traditional classroom with flexible seating to a traditional classroom without flexible seating is recommended for future research. Another comparison study that can be studied in the future is a comparison of the same group of students who are placed half of the year in a traditional classroom and the other half of the year in a flexible seating classroom. The data from these types of studies can exhibit if there is any growth in student engagement from a traditional setting to a flexible seating setting. Data from these types of studies can also reveal if students prefer flexible seating or traditional seating.

Recommendation 7: Follow up with Students who Scored “Retreatism”

Another recommendation for future research would be to look further into the students who scored within the “retreatism” level of engagement to see what other influential factors could be affecting their perception on their level of engagement. Determining other influential factors could reveal other elements that play into student engagement which could help educators find effective strategies in increasing engagement for all students.

Recommendation 8: Flexible Seating with Choice and No Choice

An additional recommendation for future research would be to do another comparison study focusing on flexible seating with no student choice and flexible seating with student choice. Data from these studies can identify whether or not choice plays a factor with flexible seating and student engagement.

Recommendation 9: Administrator's Perspectives

A final recommendation for future research would be to study the perspectives of administrators on flexible seating. School administrators have a good sense of how classrooms look within their schools. They can see what is working within their schools and what is not. Examining their perspectives on flexible seating could shed light to educators on what is working with flexible seating within schools and what is not.

Limitations

Some limitations existed in this descriptive research study. Due to COVID-19, this study had to be pushed back and evolve to meet the guidelines of the Centers for Disease Control and Prevention (CDC). Therefore, the first limitation that could have impacted the results of this study was sample size. Originally, the researcher planned on having the entire first grade class participate. However, due to emergency distance learning and no face to face communication, it was difficult for the researcher to communicate with parents and students as often as she would prior to the emergency shutdown. Thus, recruitment was challenging and therefore impacted the sample size of the study.

Another limitation that could have impacted the results of this study was the data collection process. Due to COVID-19 no face to face interaction was allowed during the data collection process. Originally, the researcher had planned to observe students, provide a paper-based survey that was going to be read to the students, and interview the students face to face. Since the emergency shutdown, no face to face interaction occurred and data collection had to all be done electronically or virtually. This meant no more observations since school was closed, the paper survey was delivered electronically with audio attached, and interviews were done virtually. The electronically delivered survey could have affected the results of this study because the age group of the students were between six and eight therefore, they have little to no technology skills. The students' parents would have had to help navigate the survey, click the options they selected, and helped in listening to the attached audio. Interviews could have also affected the results of this study since they were done virtually. During the virtual interviews, there was feedback that got collected in some of the recordings which made it difficult to understand. Also, since the interviews were done virtually, the discussions during the interviews were not as rich as expected if done within the classroom. This could be because the comfort level of the students within the classroom with their teacher was different than their comfort level virtually with their teacher. Students had their parents sitting next to them during the virtual interviews which could have caused them to be timid in talking to their teacher. Prior to the shutdown, it was observed within the

classroom that students were extremely comfortable talking to their teacher. Therefore, the interview data could have affected the results of this study.

An additional limitation that could have impacted the results of the study is participant bias. The student participants could have responded to the survey or interview questions in a manner they thought the researcher would have wanted. Since the researcher was also the student participants' teacher, students could have wanted to present the best versions of themselves to their teacher, therefore results could have been affected.

The next limitation that could have impacted the results was that the survey prompt lacked the focus of "choice" within flexible seating. This study centered the focus on flexible seating with choice and even though the students answered the survey question in relation to their flexible seating choice, the survey prompt lacked a focus on the "choice" with flexible seating and rather focused on the students' perception on their level of engagement while sitting in their flexible seating.

Other factors could have also impacted the results of the study. There were a high number of students who scored "full engagement" and even though this study focused on flexible seating with choice, other factors could have caused students to perceive their engagement as "full engagement. These factors include teacher-student relationship, activities taken place in the class, and classroom management. Students could have perceived themselves to be engaged not only due to the flexible seating with choice but also due to the

relationship they have with their teacher. When students are comfortable and have a positive relationship with their teacher, this could possibly affect their engagement. Student activities being taken place could also affect their perception of their level of engagement because if an activity is meaningful and students find value in it, then this could also affect their engagement. Finally, classroom management could have also affected student's engagement because flexible seating requires a lot of classroom management and when a classroom is well structured this can promote engagement within the class due to the less amount of disorganization.

The final limitation that could have impacted the results of the study was that there was no comparison group. Student responses to the survey and the interviews in regard to their engagement with flexible seating does not necessarily mean they would not respond the same way in traditional seating.

Conclusions

The purpose of this descriptive research study was to examine student perspectives of their engagement when seated in flexible seating with choice. The findings collected through this study based on the perceptions of first-grade students who have experienced flexible seating within their classroom were insightful and addressed the research questions. Several consistent themes that were supported and confirmed by the research and literature emerged from students' interviews. In this study, the students explained in the interviews their

experiences with flexible seating and how they liked it, felt about it, and thought about learning with it. Themes that arose based on the students' perceptions with flexible seating were comfort, freedom of choice, movement, focus, and feelings towards flexible seating. The data compiled also showed the perceptions students have on their level of engagement. 75% of student participants perceived their level of engagement to be considered true engagement or full engagement according to Schlechty's (2011) levels of engagement, while 18.8% perceived their level to be considered strategic compliance and 6.3% perceived theirs to be retreatism. The results of the study coincided with previous research on the positive effects flexible seating has on student engagement (Allen, 2018; Burgeson, 2017; Sandeep, 2019; Travis, 2017)

In conclusion, this study adds to the literature by studying student perceptions towards flexible seating and their perception of their engagement level with flexible seating. Based on the results of this study and aligning with previous research on choice in the classroom, the researcher recommends continuing student choice in relation to seating type in the classroom. The researcher also recommends further research into the subject to gather more information on flexible seating choices and different age levels. Once educators are able to identify the levels of student engagement within their classroom along with perceptions of their learning environments in relation to engagement, they will be able to adjust their practice to improve student engagement.

APPENDIX A
LEVEL OF ENGAGEMENT SURVEY

Level of Engagement Survey

Pick the sentence that best describes how you feel when doing seatwork in flexible seating (your smart spot). Choose only one.

- I do my seatwork because I see it as important and believe I will learn by doing it. (True Engagement)
- I do my seatwork because my teacher told me to for a good grade. (Strategic Compliance)
- I do my seatwork because I do not want to get in trouble, even though I see my seatwork as not important. (Ritual Compliance)
- I think about doing other things when doing seatwork because I do not think my seatwork is important. (Retreatism)
- I misbehave when doing seatwork because I do not think my seatwork is important (Rebellion)

(Based on Schlechty's 2011 theory of engagement)

APPENDIX B
INTERVIEW QUESTIONS

Interview Questions

1. Do you like how you are able to sit in your class? Explain.
 - a. What do you like or not like about it?
 - b. What could make it better?

2. How do you feel about the place(s) you sit in in class? a. Does it help you learn? Explain.

APPENDIX C
PARENT/GUARDIAN INFORMED CONSENT



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Student Perception on Flexible Seating and Their Engagement: A Descriptive Research Study
Parental/Guardian Informed Consent

Dear Parents/Guardians,

This letter is to ask for your consent for your child to participate in a study conducted by their first-grade teacher. The study in which your child is being asked to participate in is designed to investigate their perception of flexible seating and their engagement. This study is being conducted by, first grade teacher Christina Castro under the supervision of her advisor Dr. Donna Schnorr, Professor of Educational Leadership, California State University, San Bernardino. This study has been approved by the Institutional Review Board, California State University, San Bernardino.

PURPOSE: The purpose of this descriptive study is to examine students' perspectives of their engagement when seated in flexible seating.

DEFINITIONS: Flexible seating- A flexible seating classroom is one in which traditional classroom seating is replaced with seating options that give students a variety of choices to sit (Wright, 2018). Flexible seating options can include low tables, couches, a cushion or rug on the floor, clipboards, tray tables, bean bag chairs, exercise balls, wheeled chairs, standing desks and more (Wright, 2018).

DESCRIPTION: Student participants were selected to represent primary grade level student engagement. A total of 26 first grade students will be selected to participate in this study. The study will start with all student participants completing a survey through Google Form where they express their feelings towards their engagement with flexible seating. Then, 5 students will be randomly selected to participate in an interview with the researcher through Google Meet; those students will be asked to answer interview questions that deal with their perception on their engagement within their flexible seating environment.

PARTICIPATION: Your child's participation in the study is purposeful and voluntary. Your child does not have to answer any questions they do not wish to answer. Your child may skip or not answer any questions and can withdraw from participation at any time. You are free to withdraw your permission for your child to participate in the study. If you or your child choose to withdraw from the study, you agree that you will notify the researcher listed below, in writing. Should you or your child decide to withdraw participation from the study, there will be no effect on you or your child's relationship with the researcher, your child will not

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receive any consequences for withdrawal from the study, and your child's grade will not be affected in any way.

CONFIDENTIAL: Your child's responses will remain confidential and your child's name will never be associated with any results of this study. Your child will be labeled with a number, only identifiable to the researcher. The data collection process will include the use of an audio recording device and all recordings will be transcribed for analysis. All data, including recordings, will be stored in a password protected computer which will be locked in a safe in the researcher's home which only the researcher has access to. All data, including recordings, will be destroyed three years after the research project has ended. At no point will your child's identity be disclosed or even associated with the research findings.

DURATION: The duration of this study will be about 2-3 weeks long during June and July 2020. Throughout that time the participants will participate in one survey with a duration of 5-10 minutes. Student participants may be asked to participate in an audio recorded semi-structured interview that is related to their perspective of their flexible seating environment and their engagement with duration of 15-30 minutes.

RISKS: Participating in this study has minimal risks. Should your student, for any reason, need any follow up or has any questions after taking the survey or responding to the interview questions, they can talk to the primary researcher, an administrator, any other school personnel, or the researcher's dissertation chairperson.

BENEFITS: Participating in this study will not only help the researcher but could also help your child. Participating in this study will help the researcher understand student levels of engagement in relation to their seating environment which in the end can help your child's teacher with the design of their classroom seating environment in order to promote student engagement.

AUDIO: Please provide your initials if you understand that this research will be audio recorded:
Initials _____

INTERVIEWS: Please provide your initials by the following statement you agree with in terms of interviews.

I understand that my child may be selected for interview and give consent for them to participate in interviews: Initials _____

I understand that my child may be selected for interview and do not give consent for them to



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participate in interviews: Initials_____

CONTACT: If any questions or concerns may arise as a result of your child's participation in the study, you may contact the main researcher, Christina Castro at 909-641-5891 or 003717570@coyote.csusb.edu. Another point of contact includes the dissertation chairperson Dr. Donna Schnorr at 951-907-4231 or dschnorr@csusb.edu

CONFIRMATION STATEMENT: Your signature below affirms that you have read and understand the consent document and consent for your child to participate in this research study.

SIGNATURE:

Signature of Parent of Student Participant
Date
Signature of Researcher
Date

*NOTE: If parent consent is granted, please have the student complete the student assent form. If parent consent is not granted, please disregard the student assent form. Please make sure to mail or email this consent form along with student assent forms to the researcher within a week of receiving this form.

By mail: Attn: Ms. Christina Castro
2170 Catalpa Ct.
San Bernardino Ca, 92404

By email: 003717570@coyote.csusb.edu

Citation: Wright, C. (2018). How Flexible Seating Is Increasing Student Engagement. Retrieved from <https://blog.mindresearch.org/blog/flexible-classroom-seating>

APPENDIX D
STUDENT ASSENT FORM



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Student Perception on Flexible Seating and Their Engagement: A Descriptive Research Study

Student Assent Form

My name is Ms. Christina Castro. I am doing a project for college where I am trying to learn about the levels of participation students show in their smart spots while doing school work. If you would like, you can be in my study. This study has been approved by the Institutional Review Board, California State University, San Bernardino.

I will need both your and your parents' permission to collect some information. If you decide you want to be in my study, I will collect information on your feelings towards the places you sit, and your feelings towards your level of participation in class. You will not have to do any extra work, or work that is different from normal. The only things I will ask you to do is complete a survey for me and some of you I may ask to interview.

Participating in this study has risks no greater than normal day activities. If at any part during the study, you need someone to talk to, you may speak with me the researcher, the principal, another teacher from the school, or my advisor.

If you choose to participate in this study, and are chosen for an interview, the interviews will be voice recorded. All recordings will only be for me the researcher and all your information will be protected.

Participating in this study will not only help me, but also help you. Participating in this study will show the researcher your level of participation within the places you sit in class which could help your teachers see if the places you sit make a difference in your level of participation in class.

Other people will not know if you are in my study. When I tell other people about my research, I will not use your name and no one will know what answers you gave.

I have asked your parents if you can participate but I also wanted to ask you if you would like to participate. If you do not, that is okay. Even if your parents say yes, you do not have to. If you want to be in the study now and change your mind later, that is okay. You can stop at any time. Not participating in the study will not affect your grade at all or your relationship with me the researcher at all.

If you have any questions, you may ask me at any time.

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Agreement

I have decided to be in the study even though I know that I do not have to do it. Ms. Christina Castro has answered all my questions.

Signature of Student Participant Date

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APPENDIX E
PERMISSION FROM SCHOOL PRINCIPAL



College of Education
Office of Doctoral Studies

Dear [REDACTED]

I am writing to request permission to conduct a research study at your elementary school. I am currently enrolled in the Educational Leadership Doctoral Program at California State University, San Bernardino in San Bernardino, CA and am in the process of writing my dissertation. The study is entitled: **Student Perception on Flexible Seating and Their Engagement: A Descriptive Research Study**

The purpose of this qualitative descriptive study is to examine students' perspectives of their engagement when seated in flexible seating with choice.

Student participants were selected to represent primary grade level student engagement. A total of 26 first grade students will be selected to participate in this study. The study will start with all 26 student participants completing a survey through Google Form where they express identify their level of engagement in class with flexible seating. Then, 5 students will be randomly selected to participate in an interview with the researcher through Google Meet; those students will be asked to answer interview questions that deal with their perception on their engagement within their seating environment.

All student responses will remain confidential and will never be associated with any results of this study. All students will be labeled with a number, only identifiable to the researcher. The data collection process will include the use of an audio recording device and all recordings will be transcribed for analysis. All data including recordings will be stored in a password protected computer which will be locked in a safe in the researcher's home which only the researcher has access to. All data including recordings will be destroyed three years after the research project has ended. All findings of the study will be shared with the district.

The duration of this study will be about 2 weeks long. Throughout those 2 weeks the participants will participate in one survey through Google Form with duration of 5-10 minutes. The student participants may be asked to participate in an audio recorded semi-structured interview through Google Meet that is related to their perception of their engagement with their flexible seating environment with duration of 15-30 minutes.

This study has minimal risks. Should any student, for whatever reason, need any follow up or has any questions after taking the survey, being observed, or responding to the interview questions, they can talk to the primary researcher.

This study will not only help the researcher but could also help students. This study will help the researcher understand student levels of engagement in relation to their flexible seating environment which in the end can help teachers with the design of their classroom seating environment in order to promote student engagement.

Your approval to conduct this study will be greatly appreciated. If you have any questions or concerns you may contact me at my email address: 003717570@covote.csusb.edu or phone number: 909-641-5891.

If you approve, kindly sign below. Alternatively, kindly submit a signed letter of permission on your

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school/district letterhead acknowledging your consent and permission for me to conduct this study at your elementary school.

Sincerely,

Christina Castro

California State University, San Bernardino Educational Leadership Doctoral Student

Approved by:

<u>[Redacted]</u>	<u>Elementary Principal</u>	<u>[Redacted]</u>	<u>04/30/2020</u>
Printed name	Title	Signature	Date

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APPENDIX F
DISTRICT STATEMENT OF APPROVAL

STATEMENT OF AGREEMENT

In conducting research in the [redacted] the researcher agrees to adhere to the terms and conditions listed below:

- A. Research Activities will remain in compliance with the following Federal Regulations:
 - i. The Family Educational Rights and Privacy Act (FERPA: 34 CFR Part 99) which is designed to protect the privacy of a student's education records at all public elementary and secondary schools and virtually all public and private postsecondary institutions available at: <http://www.ed.gov/policy/gen/reg/ferpa/index.html> ;
 - ii. The Protection of Pupil Rights Amendment (PPRA: 34 CFR Part 98) which is designed to protect the rights of parents and students in programs that receive funding from the Department of Education available at: <http://www.ed.gov/policy/gen/guid/fpco/ppra/index.html> ; and
 - iii. The Ethical Principles of Psychologists and Code of Conduct from the American Psychological Association available at: <http://www.apa.org/ethics/code.html>
- B. All data collected from the [redacted] must be used for graduate level work at the aforementioned institution, sponsoring entity or agency which seeks to add to research in the field of education and to inform student academic achievement.
- C. Qualitative studies which involve anecdotal data from students require written permission from parents/legal guardians.
- D. Any modifications or amendments to the original proposal must be submitted in writing to the [redacted] Instructional Services Division Office of Research, Testing, and Accountability.
- E. The researcher(s) agrees to submit an abstract and executive summary of the findings to the [redacted] Instructional Services Division Office of Research, Testing, and Accountability.

By signing below, you are indicating that you agree to abide by the terms of this agreement.

<u>Christa</u>	<u>2-13-2020</u>
Signature of Researcher/Principal Investigator Title	Date
<u>Donna Schnorr</u>	<u>2/13/2020</u>
Immediate Supervisor Signature Title	Date
<u>[redacted]</u>	<u>03/02/2020</u>
Director of Research and Evaluation	Date
<u>[redacted]</u>	<u>3/16/2020</u>
Assistant Superintendent of Instruction	Date

APPENDIX G
INSTITUTIONAL REVIEW BOARD APPROVAL

10/15/2020

CoyoteMail Mail - IRB-FY2020-318 - Initial: IRB Full Board Approval Letter



Christina Castro <003717570@coyote.csusb.edu>

IRB-FY2020-318 - Initial: IRB Full Board Approval Letter

1 message

mgillesp@csusb.edu <mgillesp@csusb.edu>
To: 003717570@coyote.csusb.edu, DSchnorr@csusb.edu

Tue, Jun 9, 2020 at 2:04 PM



June 9, 2020

CSUSB INSTITUTIONAL REVIEW BOARD

Full Board Review
IRB-FY2020-318
Status: Approved

Ms. Christina Castro and Prof. Donna Schnorr
Doctoral Studies Program and COE - Educ Leadership&Tech ELT
California State University, San Bernardino
5500 University Parkway
[San Bernardino, California 92407](#)

Dear Ms. Castro and Prof. Schnorr:

Your application to use human subjects, titled "Student Perception on Flexible Seating and Their Engagement: A Descriptive Research Study" has been reviewed and approved by the Institutional Review Board (IRB). The informed consent document submitted with your IRB application is the official version for use in your study and cannot be changes without prior IRB approval. A change in your informed consent (no matter how minor the change) requires resubmission of your protocol as amended through the Cayuse IRB system protocol change form.

Your application is approved for one year from June 9, 2020 through June 9, 2021.

Please note the Cayuse IRB system will notify you when your protocol is due for renewal. Ensure you file your protocol renewal and continuing review form through the Cayuse IRB system to keep your protocol current and active unless you have completed your study.

Your responsibilities as the researcher/investigator reporting to the IRB Committee include the following 4 requirements as mandated by the Code of Federal Regulations 45 CFR 46 listed below. Please note that the protocol change form and renewal form are located on the IRB website under the forms menu. Failure to notify the IRB of the above may result in disciplinary action. You are required to keep copies of the informed consent forms and data for at least three years.

You are required to notify the IRB of the following by submitting the appropriate form (modification, unanticipated/adverse event, renewal, study closure) through the online Cayuse IRB Submission System.

1. If you need to make any changes/modifications to your protocol submit a modification form as the IRB must review all changes before implementing in your study to ensure the degree of risk has not changed.
2. If any unanticipated adverse events are experienced by subjects during your research study or project.
3. If your study has not been completed submit a renewal to the IRB.
4. If you are no longer conducting the study or project submit a study closure.

Please ensure your CITI Human Subjects Training is kept up-to-date and current throughout the study.

<https://mail.google.com/mail/u/1?ik=c725db86a8&view=pt&search=all&permthid=thread-f%3A1669056872085597397&siml=msg-f%3A16690568720...> 1/2

10/15/2020

CoyoteMail Mail - IRB-FY2020-318 - Initial: IRB Full Board Approval Letter

The CSUSB IRB has not evaluated your proposal for scientific merit, except to weigh the risk to the human participants and the aspects of the proposal related to potential risk and benefit. This approval notice does not replace any departmental or additional approvals which may be required. If you have any questions regarding the IRB decision, please contact Michael Gillespie, the IRB Compliance Officer. Mr. Michael Gillespie can be reached by phone at (909) 537-7588, by fax at (909) 537-7028, or by email at mjillesp@csusb.edu. Please include your application approval identification number (listed at the top) in all correspondence.

Best of luck with your research.

Sincerely,

Donna Garcia

Donna Garcia, Ph.D., IRB Chair
CSUSB Institutional Review Board

DG/MG

<https://mail.google.com/mail/u/1?ik=c725db86a8&view=pt&search=all&permthid=thread-f%3A1669056872085597397&simpl=msg-f%3A16690568720...> 2/2

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