

The Relationship Between Classroom Environment and Student Attitudes Toward School in a

Selected Multiage Classroom

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Abstract

The purpose of this study was to determine the relationship between classroom environment and student attitudes toward school in a selected multiage classroom. The sample consisted of 38 students who were part of the multiage unit from a single elementary school. The sample consisted of 19 female students and 19 male students from kindergarten, first grade, and second grade levels. Data were collected using a classroom environment survey and a student attitudes survey. Data were analyzed using a Pearson Product-Moment Correlation Coefficient test. The results indicated a significant relationship between classroom environment scores and attitude scores. Similarly, a significant relationship was realized between girls' perceptions of classroom environment and their attitudes toward school. Results also indicated that there was no significant relationship between boys' perceptions of classroom environment and their attitudes toward school. This study suggests that classroom environment influences student attitudes.

Keywords: classroom environment, student attitudes, multiage



Institutional Review Board Decision Tree

Based on your responses, you do not need approval from the IRB.

It looks like your study is exempt from IRB approval. You should have your study approved by the highest person in the department or area overseeing the targeted participants. For example, a campus-wide survey should be approved by the President, a student or faculty survey should be approved by the Academic Dean, and a survey specific to a certain major should be approved by the Area Chair.



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However, you should carefully review all procedures and questions to ensure that anonymity is protected especially in the case of institutional surveys where questions such as age, race and gender could be used to identify participants even if they are not asked for their names.

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Chapter 1

Introduction

In the United States, the majority of elementary classrooms are single-age classrooms. This is where students who are generally the same age are in a classroom together with one teacher for one school year (Baily, Werth, Allen, & Sutherland, 2016). The single-age classroom environment has some drawbacks. The first drawback is that students vary in developmental readiness (Ong, Allison, & Haladynn, 2000). A second drawback is that older students see themselves as being superior to the younger students. A third drawback is that students in single-age classrooms may not feel a sense of community. If they do not get along with students other than the ones in their grade level, there may be a sense of competition which does not foster a positive learning environment (Logue, 2006). This classroom environment style is much different than the multiage classroom environment.

The multiage classroom environment includes students that are not all the same age. Multiage classrooms contain students from different grade levels in the same classroom. The multiage environment idea is supported by a lot of historical research including the works of Marietta Johnson and John Dewey. The multiage classroom environment is also grounded in the theories of Jean Piaget, Albert Bandura, and Lev Vygotsky (Bailey et al., 2016). It has also been adopted in some school systems across the United States (Song, Spradlin, & Plucker, 2009).

There are many benefits to the multiage classroom style. The multiage environment allows students to progress socially and cognitively ahead of what can be reached in a single-age classroom. This style of classroom creates an environment that is beneficial to different learning styles (Ong et al., 2000). The multiage environment also allows for looping which leads to better

teacher-family relationships. Students also gain better social skills while in the multiage environment (Bailey et al., 2016). There is also research showing that multiage classroom environments can be beneficial to academic achievement. Having high academic achievement is greatly valued across the United States. Teachers are pressured to make sure students are achieving at the level they should be at the end of the school year in each academic area. Multiage environments allow students to achieve higher academic scores in some subject areas (Ong et al., 2016).

In this study, the researcher will first be looking at the classroom environment. The classroom environment is related to many aspects of student learning. Students achievement and students motivation are both influenced by the classroom environment. Having a positive classroom environment can boost self-esteem and facilitate learning of social skills. The classroom environment also influences learning outcomes and student attitudes toward learning (Lau, Chou, Miao, Wu, Lee, & Jwo, 2015).

The second variable the research will examine is student attitudes. The attitudes that students have toward school can impact their success. “It has been shown that such caring, individual-emphasized, project-based, community can improve student attitudes toward school and school work” (Song et al., 2009). When students have a positive attitude about school, they are more likely to want to be there and learn. Students may be more motivated in this setting. In the multiage environment, there is a sense of community and family that can create a positive environment which can be motivating to students (Bailey et al., 2016).

In general, students in the multiage environment develop better social skills, a sense of community, and improved behaviors. Students accept each other’s differences and encourage one another (Bailey et al., 2016). When students are switched to multiage from single-age their

attitudes show significant changes. Aggressive behaviors are significantly reduced in this type of environment. There is also more varied language behaviors because students are engaging with their peers who may be at a different level than them (Logue, 2006). Overall, the multiage classroom environment makes all students feel like they belong which gives them a positive view of school. This study was conducted to find out how student attitudes are toward school when they are included in a multiage program.

Problem Statement

Multiage classroom environments have been around for many years. Over time they have been slowly disappearing, but there have been arguments in favor of keeping the multiage style of classrooms. The arguments say that multiage environments may make students have a more positive attitude toward school. Therefore, the problem for this study was to examine the relationship of classroom environment on student attitudes toward school in a selected multiage environment.

Purpose Statement

The purpose of this study was to investigate the relationship of classroom environment on student attitudes toward school in a selected multiage classroom.

Significance

Student attitudes toward school is important throughout schooling. For students to be successful they must be motivated. The multiage environment creates a community of learners in a positive environment which can increase student positive attitudes toward school (Song et al., 2009). It is important to find ways to make school enjoyable for students so they want to continue learning. In this study, the researcher wanted to find out if the multiage environment actually impacts the attitudes of students toward school.

Limitations

This study was limited by the following factors:

1. The sample for this study was not randomly selected.
2. The surveys used to assess classroom environment and student attitudes were created by the researcher and not tested for reliability or validity.

Definitions

1. **Attitudes** – Student feelings towards attending school.
2. **Classroom Climate** – The tone of a classroom.
3. **Classroom Environment** – The physical setting of a classroom.
4. **Differentiated Instruction** – Instruction that is planned for different learning styles of the students within the classroom.
5. **Looping** – Students get to be placed with the same teacher for more than one year (Bailey et al., 2016)
6. **Multiage Classrooms** - One classroom containing students of different grade levels (Baily et al., 2016).
7. **Single-Age Classrooms** – One classroom containing students in the same grade level based on chronological age (Baily et al., 2016).
8. **Teacher-Family Relationships** – The relationship between the teacher and students and their families.

Overview of the Study

This research contains five chapters. Chapter One includes the introduction, the statement of the problem, purpose of the study, significance of the study, limitations, definitions of terms, and an overview of the study. Chapter Two contains a critical review of the literature related to the study. The research methods are included in Chapter Three. Chapter Four contains the findings of the study. Lastly, Chapter Five includes a brief review of the study, a summary of the findings, a discussion of the findings, conclusions, recommendations for future study, and implications.

Chapter 2

Review of the Literature

Introduction

To further understand the purpose of this study, a review of the related literature was conducted. This chapter includes the findings of the review of the literature. First, the researcher will discuss the literature related to classroom environments. Secondly, multiage classrooms will be discussed. Lastly, the literature related to student attitudes will be discussed by the researcher.

There have been many research studies about classroom environment, but there have not been very many recent research studies on the multiage environment. Most of the research about the multiage classroom environment is dated, and some of the most recent research is from the 1990s. Because there are many different ways multiage classrooms are implemented, it is difficult for researchers to generalize the impact of multiage education (Song, Spradlin, & Plucker, 2009).

Classroom environment is the physical setting of the classroom. It is related to many aspects of how students learn in the classroom. The students are surrounded by the classroom environment the entire time they are attending school (Lai, Chou, Miao, Wu, Lee, & Jwo, 2015). There have been several studies conducted about classroom environment and multiage classrooms, but not as many studies about attitudes. Most of the research studies that could be found were about student attitudes toward science and physical education in elementary schools. The studies on attitude were mostly focused toward getting students to think positively about

one subject area. The researcher reviewed literature about each topic to show information that has already been found by fellow educational researchers.

Classroom Environment

Classroom environments are an important factor that influences student learning and perceptions of school. There have been a few studies on classroom environment, but almost every study you can find is about how the classroom environment relates to academic achievement or classroom management. Even though the studies about achievement and classroom management do not relate directly to student attitudes, they are still very important pieces of research.

The environment that students are surrounded by can influence academic achievement, motivation, and goal achievement. Motivation is a huge factor in student success. If students are not motivated they will not want to learn which will not help them be successful. In positive classroom environments, students have more positive attitudes toward schools and they have greater learning outcomes (Lai et al., 2015).

In an article written by Christine Hancock and Deborah Carter (2016) the reader can see how to build an environment that produces positive behaviors which makes the classroom environment much more positive. These researchers explain that negative behaviors influence every aspect of a classroom. With all of the negativity surrounding them, students will not be successful, there will be classroom management issues, and high school students in these types of environments are more likely to drop out of school. All of this can be prevented by promoting positive behaviors which will create a positive classroom environment. Teachers can follow four guidelines to create this type of environment. First, they must develop a classroom environment that is predictable. Then, they must define and teach their expectations. They should

acknowledge the positive behaviors and consistently take care of the negative behaviors. Lastly, teachers should use data to inform their decisions about the student behavior. Teachers can use tally sheets and other forms of observation that can help inform them about the behaviors in their classroom. When teachers work hard towards building positive classroom environments they build great foundations for students to be successful academically and socially (Hancock & Carter, 2016).

A study conducted by Lai, Chou, Miao, Wu, Lee, and Jwo (2015), found that the way students view the classroom environment is important. These researchers found that if the classroom environment was positive the students would be more motivated to learn. This caused the students to achieve higher academic scores which led to a rise in self-esteem and confidence. As a teacher, you want students to be confident about the knowledge that they are gaining. Positive classroom environments also facilitate the learning of social skills and social groups. Because the student view the classroom in a positive way, they also feel more motivated to learn. They actually want to be in the classroom. This study also found that positive classroom environments are very important for effective instruction across all content areas. To find out this information, the researchers gave out surveys to be completed about classroom environment. The overall findings show that if students prefer the environment they are learning in they will be more successful academically and socially (Lai et al., 2015).

The previous study and many other studies have looked at how the classroom environment related to student motivation. A study conducted by Marko Radovan and Danijela Makovec (2015) looked at the relationship between students' motivation and perceptions of the classroom environment. These researchers wanted to find out if the classroom environment had any relationship to student motivation. They really wanted to focus on a classroom environment

that believed in goal orientation to see if the students would be more motivated. These researchers believed that students in an environment that focused on intrinsic goal orientation will have high self-efficacy, use complex cognitive strategies to learn, and achieve better learning outcomes. To come up with their data, the researchers gave out a series of surveys and questionnaires. The sample they selected included one-hundred and twenty students. The surveys they used were based on a social-cognitive approach. The researchers used surveys that would find out motivating strategies for students and how they feel about the learning environment. They concluded that an environment that stresses the importance of setting goals motivates students to set their own goals. In setting their own goals, the students feel more in control of their learning and are more motivated to learn. They also found that students who view their classroom environment in a positive way are more intrinsically motivated and achieve higher than in a negative environment (Radovan & Makovec, 2015).

Zulfiqar Ali and Mustaq-ur-Rehman Siddiqui (2016) conducted a study that looked at the environment as a predictor of academic achievement. These researchers hypothesized that positive school environments have positive effects on student achievement and performance in school. This led them to conduct their study to see how the classroom environment influences the academic achievement of students. They found that in a positive classroom environment, students, parents, and teachers are all members of a community and everyone enjoys the experience. The feelings of the classroom affect how teachers act, how they treat students, and how students achieve. The classroom environment includes curriculum, grouping of students, and teaching behaviors. The research they explored was “after the fact”, or Ex Post-Facto research. They selected over one-thousand and five-hundred students for their research. They used questionnaires to see how students felt about the classroom environment. In their findings,

they discovered that there is a significant relationship between classroom environment and students' academic achievement. They also found that students benefitted socially from a positive classroom environment (Ali & Siddiqui, 2016).

Another study stated that the “quality of the classroom environment is a significant determinant of student learning” (Picket & Fraser, 2010). Students are surrounded by this environment the entire time they are in school. Students are influenced by their surroundings so it makes sense that the environment would play a part in their learning. When analyzing the information collected from the National Assessment of Educational Progress (NAEP), researchers found that the classroom environment is a predictor of academic achievement and student attitudes. To find out how the students view the classroom environment, researchers and teachers can use a variety of surveys and questionnaires (Picket & Fraser, 2010).

The next piece of literature the researcher found was about student knowledge of the environment and their attitudes toward the environment. These researchers wanted to know if student knowledge of the environment would impact their attitudes toward the environment. These researchers found that the families of the students influenced their attitudes toward the environment (GÖK & AFYON, 2015). How the students view the classroom environment seems to be based off of what their parents and other family members think about the environment.

A book written by Wendy C. Kasten and Elizabeth Monce Lolli about implementing multiage explains the classroom environment that should be present in all classrooms. The environment of classrooms should feel safe and stable. The environment that surrounds students affects how they think, learn, and perform. The classroom environment should be a place where students can experience risk-free learning, and where students have a feeling of ownership over their learning. The overall feeling of the classroom environment should be positive. Parents in

multiage classrooms say that their children feel more secure and accepted (Kasten & Lolli, 1998). The next section of this chapter goes into more detail about the multiage classroom.

Multiage Classroom

The classroom environment that was studied by the researcher was a little different than most classroom environments that are common in the United States. Multiage classrooms include students of multiple grade levels and ages within one room. There is more flexibility within this type of environment. Students also have the opportunity to make more progress socially and cognitively in a multiage classroom. The multiage classroom idea is supported by the philosophy of progressive education. Marietta Johnson and John Dewey, the father of education, have work that support this idea. Multiage education is also supported by the theories of Jean Piaget, Albert Bandura, and Lev Vygotsky (Baily, Werth, Allen, & Sutherland, 2016).

Multiage classrooms are a very student-centered type of classroom. They focus on how each individual student is doing. One article about a research study that the researcher found was about improving student-learning outcomes. Teachers have always wanted to find ways to improve the learning outcomes of their students. Increased use of student-centered learning, like what is found in multiage classrooms, is producing positive outcomes. Teachers are using more team-based learning, incentive-based learning, and flipped classrooms. Student-centered learning allows students to take more responsibilities for their learning. This type of learning is based on methods such as cooperative learning, critical thinking, and declarative group assignments. The study was conducted on two classes which included a total of fifty-eight students. In, this study they used surveys to come up with their data. They concluded that using student-centered teaching techniques have a positive impact on student learning outcomes (Bradford, Mowder, & Bohte, 2016).

Because the multiage classroom is student-centered, the things students do in the classroom are self-regulated. The idea of self-regulated learning is supported by the social cognitive theory of Albert Bandura. The goal of allowing students to be self-regulated learners is to help them learn to make choices on their own which can lead to higher motivation to complete school work and to make higher academic achievements. Self-regulated learning can also lead to students with higher self-determination. The development of agency is important for students to become self-regulated learners. Agency is the student's ability to make choices and act on their choices. Bandura claims, "Agency emerges from the participation of a developing human being in the physical and sociocultural world." At first, students need to be directed by the teachers on how to self-regulate their learning. After they understand how to make their own choices they can then self-regulate in their own ways (Martin, 2004). This could be one of many benefits that are included within the multiage classroom environment.

Students in multiage classrooms benefit from many different aspects of the multiage experience. Looping is one of those important aspects of the environment that is unique to the multiage classroom experience. Looping allows students to be with the same teacher for more than one year. Because of looping, there is a stronger sense of continuity. The teachers and students are together for more than one year so they build stronger relationships with each other. The teachers and parents also build a stronger relationship. Both parent-teacher and student-teacher relationships are important in creating a positive classroom environment (Song et al., 2009).

In the multiage classroom, developmental diversity is valued by the community of learners, celebrated, and harnessed to support student learning. Because students in the multiage classroom vary in age and ability levels, it is important for the teacher to keep the diversity in

mind when setting up the curriculum. Differentiated instruction is an important benefit of the multiage environment. Teachers can differentiate with grouping and the difficulty of the work that the students are completing. Students can be working on the same topic at their own pace. Another benefit that goes along with differentiated instruction in the multiage classroom is the ability to include special needs students without having them stand out. Students with special needs can be included in this type of classroom and can be successful. All students can be successful in the multiage classroom (Bingham, Dorta, McClaskey, & O'Keefe, 1995). It is becoming more important for all students to be fully included within the general classroom so this benefit is valuable.

The multiage environment can also benefit social skills and behaviors. Multiage classrooms can improve student social skills and reduce discipline problems within the classroom. Students get to work with peers that are of different ages. This allows older students to mentor younger students, and younger students learn from older peers (Ong, Allison, & Haladynn, 2000). In the multiage classroom, older students are highly encouraged to mentor their younger students. There is higher language development in multiage classrooms because of the older and younger peers working together (Song et al., 2009).

The first study the researcher found about multiage explained how an entire school transitioned to the multiage classroom design. In this study, the researchers wanted to see how transitioning an entire kindergarten through fifth grade school to multiage would benefit their students and teachers. They found that multiage fosters parental involvement in a way that single-age classrooms do not. It also provides students with more flexibility and more opportunities to grow socially (Bailey, et al., 2016).

A study conducted in a multiage preschool setting concluded that multiage groupings benefited their students more than single-age groupings. The preschool originally started out as a group of single-age classroom. They observed the students in the single-age classroom environment. Then, they transitioned to the multiage classroom arrangement after a holiday break. After the transition the students were observed again by the same observers to see if the classroom arrangement changed their behaviors. They found some significant changes in how the students behaved and learned. In this study, the researchers found that academic and social development is higher in the multiage setting. They also found that self-concepts are better and the students have more positive attitudes toward school than children in a single-age classroom setting. They also found that the younger students were learning more complex language patterns from their older peers. Disruptive and aggressive behaviors significantly decreased when the students transitioned to a multiage setting (Logue, 2006).

A third study that was looked at by the researcher shows how academic achievement differs in a multiage classroom versus a single-age classroom. The sample of their study was from three urban Arizona school systems. There were six schools involved, and each school had single-age classrooms and multiage classrooms. The researchers used performance assessments in reading, writing, and mathematics to find out the achievement scores. They used analyses of variance (ANOVA) to find results. The researchers found that students in multiage outscored the single-age students on the assessments. The effects were significant for mathematics, but not as substantial for reading and writing. They also found that girls outscored the boys on the assessments, and non-Title I students outscored the Title I students. This study shows important evidence of achievement in the multiage classroom (Ong et al., 2000).

Another study conducted by Joann Elder, Beckie Clawson, and Andrea Howard (1996) was meant to find out the overall effect the multiage classroom has on children. These researchers wanted to find out if the multiage classroom affected school attendance, social skills, how parents feel about the school, and how students of different ages would choose to interact. They found that the multiage students had an overall higher attendance rate than the students in single-age classrooms. They also found that social skills improved with students in the multiage classrooms, and that the students enjoyed interacting with peers of different ages. Lastly, they found that parents and students had a positive attitude towards the multiage classroom experience. The researchers gathered this information through multiple surveys and questionnaires. Overall, the results of this study show that the multiage classroom was more positive and beneficial to students, parents, and teacher (Elder, Clawson, & Howard, 1996).

There are also many articles that have been written about the multiage experience. One article about multiage explained the benefits of flexible grouping strategies. The author of this article explained how the teachers in multiage plan groupings based on the needs of the students within their classroom. This is a way of differentiating instruction. In the multiage environment, students benefit from being able to complete tasks according to their developmental levels. Teachers within the multiage environment also understand how important it is to incorporate social interaction and collaborative learning and play in the classroom. When the classroom environment feels positive student attitudes will improve (Hoffman, 2002).

Student Attitudes

The attitudes that students have toward school and the classroom environment can impact the way that students learn and achieve. There have only been a few studies that show the relationship between classroom environment and students attitudes. Most of the studies are about

how the learning environment has an effect on the student attitudes towards a single subject area. One study about non-cognitive effects of multiage classrooms on students shows that the environment had small, positive effects on attitudes and self-concept, but this study mostly focused on the benefits of multiage classrooms have on academic achievement (Ong et al., 2000).

The study about the switch to preschool multiage that was previously mentioned in the Multiage Classrooms section of this chapter also looked at how the multiage classroom environment impacted the students' attitudes. These researchers and teachers conducted action research to find out which type of classroom environment would benefit their students the most. They found that the multiage classroom arrangement helped student achievement, and it significantly reduced the amount of disruptive behaviors that were occurring in the single-age environment. It also benefited the students socially and they had a better attitude towards the classroom environment (Logue, 2006).

Another study about classroom environment and student attitudes found that if there are positive changes in the classroom environment, there will be increased academic achievement and increased favorable student attitudes towards school. This study found that the students responded better to a positive classroom environment (Pickett & Fraser, 2010). When students have a more positive attitude toward school, they are more motivated to learn which leads to success.

İrfan Şimşek (2016) conducted a study to find out if the learning environment has a relationship to student attitudes toward mathematics. This researcher wanted to find out if the learning environment could make students have a more positive attitude toward mathematics, and they wanted to see if student were more motivated to learn math. This study was a one group

pre-test – post-test experimental model. The sample included twenty-eight students from a third grade class. The students were given achievement tests at the beginning and end of the study. They were also given a survey to find out their attitudes. The researcher actually changed the physical environment to see how the students would react. They were not in their normal classroom. They took a field trip to a university to learn about mathematics in a place with more technology. They did not find significant differences in the answers to the attitude survey from the beginning of the study to the end of the study. The researcher did find that the use of a mathematics robot had a positive effect on the students' attitudes toward mathematics. Overall, the students became more interested in mathematics because of the change of environment and use of technology (Şimşek, 2016).

Another study about student attitudes toward math was conducted by Xinrong Yang (2015). This researcher wanted to see if there was a relationship between the mathematics learning environment and the students' attitude toward mathematics. Student attitudes toward mathematics has been a strong factor of mathematics learning and mathematics achievement. The sample chosen for this study included two-thousand four-hundred and fifty-five students from twelve schools and fifty-two classrooms. To collect data, the researcher used a classroom learning environment questionnaire, a mathematics attitude questionnaire, and mathematics achievement. The “data were analyzed using factor analysis, descriptive statistics, two-way MANOVA, simple correlation analysis, and multiple regression analysis.” The results found that students did not have very positive attitudes toward mathematics. Boys were found to view mathematics in a more positive way than girls. Overall, the researcher found that there was a positive relationship between the learning environment and students' attitudes toward mathematics (Yang, 2015).

Other studies about student attitudes toward a single subject have been conducted. One study was conducted to find out the students' attitudes toward science. Hacıeminoglu (2016) believed that the purpose of science education is to have students develop positive attitudes toward science. Attitude is a factor that influences the behavior of humans. It is affected by personal experiences, personal opinions, and education. There have been some studies that show a relationship between the science learning environment and student attitudes. This researcher believed that teachers should create a learning environment that will help students gain a positive attitude toward science. Teachers should also pay attention to individual learning differences because they are an important factor of student learning. Students' attitudes toward science has become a popular research topic of the past thirty years. Classroom learning environment is one of the main factors that has an effect on student attitudes. This researcher administered surveys online to three-thousand five hundred and ninety-eight seventh grade students in different regions. The researcher administered The Test of Science Related Attitude (TOSA), The Learning Approach Questionnaire (LAQ), The Achievement Motivation Questionnaire (AMQ), The Nature of Science Instrument (NOSI), and the Science Achievement Test (SAT). The researcher used correlations analysis to see the relationship between attitudes, learning approaches, Nature of Science (NOS) views, and achievement. Multiple regression analysis was conducted to see if attitudes towards science can be predicted from motivational goals, learning approaches, NOS views, and science achievement. An analysis of covariance (ANOVA) was used to see the effects of gender and the socio-demographic variables. The correlational analysis found that students' attitudes "had a strong positive correlation with performance goal orientation, self-efficacy, meaningful learning, and rote learning." The multiple regression analysis found "that meaningful learning, students' self-efficacy, students' NOS views, and rote

learning significantly contributed to students' attitudes." The ANOVA found that gender significantly influenced student's attitudes. The researcher concluded that students had a more positive attitude toward science when the learning was meaningful which resulted in higher achievement scores (Hacieminoglu, 2016).

Researchers from the Association for the Psychological Health of Children and Adolescents, Boston's Children's Hospital, and Harvard Medical School got together to conduct a study on whether using a bullying preventative program would create a more positive environment which would lead to positive student attitudes toward their elementary school. They knew that bullying is something that negatively affects students everywhere. The purpose of their study was to evaluate how a prevention program could influence the environment of the school and the students' attitudes toward the school. Through their research, it appeared that in the elementary setting students were mostly verbally bullied. School bullying is negative behaviors that students show toward other students in a way that could physically or psychologically harm them. This leads to a negative school environment and negative attitudes toward the school. It can also lead to physical health problem, psychological health problems, and severe academic deficits. This group of researchers, wanted to find a way to decrease the negativity so students can be healthy, successful, and positive. Positive attitudes emerged as a predictor of how students can adapt to the demands of the school. It is important that the school environment be positive in order for students to have more positive attitudes toward school. This will also lead them to become more successful academically and socially. The sample that these researchers selected included six-hundred and sixty-six students from twenty public schools. They used stratified random sampling. Questionnaires and surveys were used to collect the data. They gave the questionnaires and surveys before and after the prevention program. The data showed

significant results. Students were less likely to avoid school after the program had been implemented. This was due to a more positive environment where students felt safe and secure. The results also showed that students began to like school more after the program was implemented. They began to see the school in a more positive way. Their overall findings concluded that creating programs to make school environments more positive and safe will enhance student attitudes and motivation to attend school and become successful individuals. (Tsiantis, Beratis, Syngelaki, Stefanakou, Asimopoulos, Sideridis, & Tsiantis, 2013).

Conclusion

To summarize, after reviewing the literature it seems that there have been several research studies on classroom environment. There also seems to be a lot of studies about the multiage classroom. However, there have not been many studies that focus directly on the impact of the multiage classroom environment on student attitudes. The studies on multiage have highlighted the many benefits of this type of classroom environment. There also seems to have been more research on academic achievements than student attitudes. Most researchers have been looking for environmental factors that may have a relationship to how students are achieving academically. The limited research on student attitudes has mostly be about how student attitudes relate to academic achievement. The researcher wanted to know how the environment can influence student attitudes. This could be valuable information to know especially if the previous research on the relationship between attitudes and academic achievement is accurate. Because of the lack of research on the topic of student attitudes toward school, the researcher decided to conduct this study on the relationship between classroom environment and student attitudes in a selected multiage classroom (Song et al., 2009).

Chapter 3

Methodology and Procedures

The purpose of this study was to determine if there was relationship between classroom environment and students attitudes toward school in a selected multiage classroom.

Population

The population for this study came from an elementary school in Johnson City, Tennessee. In the 2010 census, Johnson City has a population of 63,152. This elementary school had a total enrollment of 517 students.

This elementary school served grades kindergarten through fourth. The students represented different income levels and races. The breakdown of race was 82.8% Caucasian, 7% Hispanic, 5.8% Asian, and 4.4% African American. In this school, 24% of the students were classified as economically disadvantaged.

Sample

The sample for this study came from a multiage unit in this elementary school. The sample consisted of thirty-eight students who were selected from the eighty students in the multiage unit. The breakdown of student per grade level in this multiage sample was sixteen kindergarten level students, ten first grade level students, and twelve second grade level students. All races and genders were used in this study. Nineteen of the students were female and nineteen were male.

Data Collection Instruments

The data collection instruments used for this study were surveys created by the researchers. The first survey was to assess the classroom environment. The second was used to evaluate the student attitudes toward school.

The first instrument was a survey created by the researcher to measure the classroom environment in the selected multiage classroom. This survey was used to assess all students in the selected multiage classroom. The survey consisted of ten questions for the students to answer about the classroom environment. The answer choices will be a Likert scale..

The second instrument was another survey created by the researcher to measure the student's attitude toward school. This survey was designed for students to answer how they feel about their school. The survey included statements about the school. The answer choices were agree, disagree, or undecided.

Procedures

Before the study began, permission was requested and granted from the assistant principal of the elementary school and from the school board. Permission was also sought from Milligan IRB. After permission was granted, the researcher visited the multiage classroom to inform the students about the research and the survey that they would take. A consent form was sent home to the parents of the selected students. Students were given one week to take home the permission forms, have parents sign them, and return them. After all permission forms were collected, the researcher gave the students the survey to fill out while at school. Once the all surveys were collected, the researcher compared the results of the two surveys to see if there was a relationship between the classroom environment and student attitudes.

Research Questions and Reflected Hypotheses

Research Question #1: Is there a relationship between classroom environment and student attitudes toward school in a selected multiage classroom?

Research Hypothesis #1: There is a relationship between classroom environment and student attitudes toward school in a selected multiage classroom.

Null Hypothesis #1: There is no relationship between classroom environment and student attitudes toward school in a selected multiage classroom.

Research Question #2: Is there a relationship between girls' perceptions of classroom environment and their attitudes toward school in a selected multiage classroom?

Research Hypothesis #2: There is a relationship between girls' perceptions of classroom environment and their attitudes toward school in a selected multiage classroom.

Null Hypothesis #2: There is no relationship between girls' perceptions of classroom environment and their attitudes toward school in a selected multiage classroom.

Research Question #3: Is there a relationship between boys' perceptions of classroom environment and their attitudes toward school in a selected multiage classroom?

Research Hypothesis #3: There is a relationship between boys' perceptions of classroom environment and their attitudes toward school in a selected multiage classroom.

Null Hypothesis #3: There is no relationship between boys' perceptions of classroom environment and their attitudes toward school in a multiage classroom environment.

Chapter 4

Data Analysis

The purpose of this study was to determine the relationship between classroom environment and student attitudes toward school in a selected multiage classroom.

Collection of Data

The data for this research were collected by administering a classroom environment survey and attitude survey to a sample of 38 students in a selected multiage classroom. The sample came from a single multiage unit. The students' scores from the classroom environment surveys and attitude surveys were collected and compared for statistical significance. The ages of the students range from 5 to 8 years of ages. There were a total of 19 males and 19 females. The demographic profile of the participating students is displayed in Table 1.

Table 1

Gender	Frequency (<i>f</i>)	Percent (%)
Male	19	50.00
Female	19	50.00
Total	38	100.00

Research Question 1

Research Question 1: Is there a relationship between classroom environment and student attitudes toward school in a selected multiage classroom? To answer research question one, the data from the environment survey and the attitude survey were collected and compared. The

mean score of the environment survey was 42.24, and the mean score for the attitude survey was 36.76. The two mean scores were compared to determine the relationship.

Research Hypothesis 1: There is a relationship between classroom environment and student attitudes toward school in a selected multiage classroom. In order to determine whether there was a significant relationship a Pearson Product-Moment Correlation Coefficient test was completed. Results indicated that there was a significant correlation ($r = .405$, $P = .012$) between results from the environment survey and the attitude survey. The coefficient of determination (r^2) revealed that 16.4% of variance in student attitudes toward school can be explained by the classroom environment. This means that 83.6% of variance can be explained by other factors. Therefore the null hypothesis was rejected. The results are displayed in Table 2.

Table 2:

Correlation Between Classroom Environment Scores and Attitude Scores

	Mean	SD	r	r ²	Sig.
Environment Score	42.24	3.730	.405	.164	.012
Attitude Score	36.76	3.506			

Note $p < .01$

Research Question 2

Research Question 2: Is there a relationship between girls' perceptions of classroom environment and their attitudes toward school in a selected multiage classroom? To answer research question two, the girls' mean scores from the classroom environment survey and attitude survey were compared. The mean score for the girls' classroom environment survey was 42.79, and the mean score for the girls' attitude survey was 37.16. The two mean scores were compared to determine the relationship.

Research Hypothesis 2: There is a relationship between girls' perceptions of classroom environment and their attitudes toward school in a selected multiage classroom. In order to determine whether there was a significant relationship a Pearson Product-Moment Correlation Coefficient test was completed. Results indicated that there was a significant correlation ($r = .466$, $P = .044$) between results from the environment survey and the attitude survey. The coefficient of determination (r^2) revealed that 21.7% of variance in the girls' attitudes can be explained by their perceptions of the classroom environment. This means that 78.3% of variance can be explained by other factors. Therefore the null hypothesis was rejected. The results are displayed in Table 3.

Table 3

Correlation Between Girls' Environment Scores and Attitude Scores

	Mean	SD	r	r ²	Sig.
Girls' Environment Score	42.79	4.063	.466	.217	.044
Girls' Attitude Score	37.16	3.625			

Note $p < .01$

Research Question 3

Research Question 3: Is there a relationship between boys' perceptions of classroom environment and their attitudes toward school in a selected multiage classroom? To answer research question three, the boys' mean scores from the classroom environment survey and attitude survey were compared. The mean score for the boys' classroom environment survey was 41.68, and the mean score for the boys' attitude survey was 36.37. The two mean scores were compared to determine the relationship.

Research Hypothesis 3: There is a relationship between boys' perceptions of classroom environment and their attitudes toward school in a selected multiage classroom. In order to determine whether there was a significant relationship a Pearson Product-Moment Correlation Coefficient test was completed. Results indicated that there was no significant relationship ($r = .307$, $P = .201$) between results from the environment survey and the attitude survey. The coefficient of determination (r^2) revealed that 9.4% of variance in boys' attitudes can be explained by their perceptions of the classroom environment. This means that 90.6% of variance can be explained by other factors. Therefore the null hypothesis was retained. The results are displayed in Table 4.

Table 4

Correlation Between Boys' Environment Scores and Attitude Scores

	Mean	SD	r	r ²	Sig.
Boys' Environment Score	41.68	3.384	.307	.094	.201
Boys' Attitude Score	36.37	3.435			

Note $p > .01$

Chapter 5

Discussions

This chapter contains a summary of findings, conclusion, recommendations, and implications of the research done on the relationship between classroom environment and student attitudes toward school in a selected multiage classroom.

Summary of Findings

In response to research question 1: Is there a relationship between classroom environment and student attitudes toward school in a selected multiage classroom? The results indicated that there was a significant relationship between classroom environment and student attitudes. The students saw the classroom environment as being very positive. They were comfortable with their teachers and the way the classroom was organized, which caused the students to view the environment in a more positive way. When the classroom environment score was higher the attitude score was also high. The more positive attitude the student had, the higher their scores. The correlation was found to be significant ($r = .405$, $P = .012$) at the 0.05 alpha level. Therefore, the null hypothesis was rejected.

In response to research question 2: Is there a relationship between girls' perceptions of classroom environment and their attitudes toward school in a selected multiage classroom? The results indicated that there was a significant relationship between girls' perceptions of the classroom environment and their attitudes toward school. When their classroom environment scores were higher their attitude score was higher. This means that when they saw the classroom environment in a positive way they also had a more positive attitude toward their school. The correlation was found to be significant ($r = .466$, $P = .044$) at the 0.05 alpha level.

The results of research question 1 and research question 2 are consistent with results of previous research. Previous research has also found that students surrounded by positive classroom environments have more positive attitudes toward their school and greater learning outcomes (Lai et al., 2015). These results most likely occurred in this environment because it is an overall positive environment that the students and teachers seem to be happy in.

In response to research question 3: Is there a relationship between boys' perceptions of classroom environment and their attitudes toward school in a selected multiage classroom? The results indicated that there was no significant relationship between boys' perceptions of classroom environment and their attitudes toward school. The boys with positive classroom environment score did not also have positive attitude scores. The correlation was not found to be significant ($r = .307$, $P = .201$).

The third research question is not consistent with the literature that was reviewed. I believe that the boys' attitude score did not relate to the classroom environment scores as much as the girls' scores because the girls may be more sensitive to their surroundings. The boys seemed to like their classroom environment, but that did not influence their attitude toward their school. On the other hand, girls' perceptions of the environment seemed to match their attitude toward school.

Conclusions

In conclusion, the data confirmed that there was a significant relationship between the classroom environment and student attitudes toward school in a selected multiage classroom. The classroom environment and attitude mean scores for females was higher than the scores for the boys, which showed that there was a difference between female and male perceptions of the classroom environment and their attitudes toward school. The classroom environment seems to

directly relate to student attitudes toward school. Further research should be conducted to test the conclusions of this study.

Recommendations

1. For future studies, researchers should use surveys for the classroom environment and student attitudes that have already been tested for reliability and validity.
2. For future studies, researchers should choose students from more than just one school.
3. For future studies, researchers should look more into boys' perceptions of classroom environment.

Implications

1. A significant relationship between classroom environment and student attitudes was found so teachers should take into consideration their classroom environment and how it relates to their students' attitudes. Students who viewed their classroom environment in a positive way also seemed to have more positive attitudes toward their class and school. Teachers should work on creating positive classroom environments for their students.
2. A significant relationship between girls' perceptions of classroom environment and their attitudes toward school was found which is something teachers should keep in mind. The girls who saw the environment in a positive way also had positive attitudes toward school. Teachers should keep this in mind when working to create a classroom environment that the students will enjoy.
3. There was no significant relationship between boys' perceptions of classroom environment and their attitudes toward school. This should be something that teachers also keep in mind. Teachers should work to find ways to make their male students view school in a more positive way.

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