

THE EFFECTIVENESS OF LOOPING AT THE
ELEMENTARY GRADE LEVEL

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The Effectiveness of Looping at the
Elementary Grade Level

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Graduate and Research Council of
Austin Peay State University

In Partial Fulfillment
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Education Specialist

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To the College of Graduate Studies:

We are submitting a Field Study written by Jessica S. Waggoner entitled "The Effectiveness of Looping at the Elementary Grade Level." We have examined the final copy of this Field Study for form and content. We recommend that it be accepted in partial fulfillment of the requirements for the degree of Education Specialist with a concentration in Administration and Supervision.

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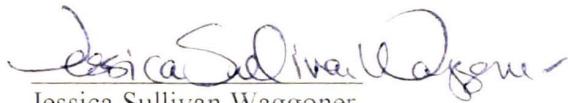
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DEDICATION

This project is dedicated to my wonderful family, especially my husband and son. The two of them have given me the pleasure of experiencing the greatest joy of all – happiness.

I also dedicate this project to my grandmother whom has always encouraged me to go beyond the present.

ABSTRACT

JESSICA SULLIVAN WAGGONER. The Effectiveness of Looping at the Elementary Grade Level (under the direction of DR. TAMMY SHUTT).

The purpose of this study was to determine if there were any significant relationships between looping programs and academic achievement proficiency levels. Looping is defined by DelViscio and Muff's (2007) as the practice of advancing a teacher with his or her students after one year to the next grade level, then looping back to begin with a new group. For the purpose of this study, a comparison of proficiency levels in mathematics and reading-language arts was made between students who had experienced learning in a looping program for grades two and three and students who were placed in a traditional classroom setting for the same years. The study of proficiency levels was conducted on the student's third grade TCAP scores. The students were divided into two groups for data analysis, those who looped and those who transitioned to the next grade level in a traditional manner and were matched based on ethnicity, socioeconomic status, and gender.

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CHAPTER 1

Introduction

Statement of the Problem

With the No Child Left Behind (NCLB) Act of 2001, many schools feel pressured to improve student achievement. With this pressure comes the implementation of new approaches to improve student achievement. One such approach is the process of looping.

Looping was defined by DelViscio and Muffs (2007) as the practice of advancing a teacher with his or her students after one year to the next grade level, then looping back to begin with a new group. Looping is often implemented in schools as an early intervention program to reduce the anxiety of elementary students transitioning from one grade level to the next. With this reduction of anxiety levels, it would be beneficial to determine if there are any related increases in achievement.

With current challenges facing today's educators, it is important to explore all options to improve student performance. If research can provide a significant link between looping and improved proficiency levels, schools will be provided with another avenue of choice for improving test scores within their schools.

Purpose of the Study

The purpose of this study was to examine the effects of looping on the academic achievement proficiency levels of lower elementary students.

Significance of the Study

Determining the effects of looping is important to parents, educators, students, administrators, and schools. Parents need to know how their child will be affected prior to enrolling them into a looping program. It is important for educators and administrators to determine how looping positively or negatively affects students' achievement. For instance, looping may increase the students' academic achievement if the students form positive relationships with their teachers. Yet, the experience may have a negative impact if the relationships formed are poor. Therefore, the effects of looping are examined in this study so that all parties are able to make informed decisions about the implementation of looping within their school.

Research Questions

1. Is there a statistically significant difference in mathematic achievement proficiency levels on the Tennessee Comprehensive Assessment Program (TCAP) between students who participate in looping and those who do not?
2. Is there a statistically significant difference in reading-language arts achievement proficiency levels on the Tennessee Comprehensive Assessment Program (TCAP) between students who participate in looping and those who do not?
3. Is there a statistically significant difference in mathematic achievement proficiency levels on the Tennessee Comprehensive

Assessment Program (TCAP) between students who participate in looping and those who do not based on socioeconomic status?

4. Is there a statistically significant difference in reading-language arts achievement proficiency levels on the Tennessee Comprehensive Assessment Program (TCAP) between students who participate in looping and those who do not based on socioeconomic status?
5. Is there a statistically significant difference in mathematic achievement proficiency levels on the Tennessee Comprehensive Assessment Program (TCAP) between students who participate in looping and those who do not based on gender?
6. Is there a statistically significant difference in reading-language arts achievement proficiency levels on the Tennessee Comprehensive Assessment Program (TCAP) between students who participate in looping and those who do not based on gender?

Hypotheses

1. There is no statistically significant difference in mathematic achievement proficiency levels on the Tennessee Comprehensive Assessment Program (TCAP) between students who participate in looping and those who do not.
2. There is no statistically significant difference in reading-language arts achievement proficiency levels on the Tennessee

Comprehensive Assessment Program (TCAP) between students who participate in looping and those who do not.

3. There is no statistically significant difference in mathematic achievement proficiency levels on the Tennessee Comprehensive Assessment Program (TCAP) between students who participate in looping and those who do not based on socioeconomic status.
4. There is no statistically significant difference in reading-language arts achievement proficiency levels on the Tennessee Comprehensive Assessment Program (TCAP) between students who participate in looping and those who do not based on socioeconomic status.
5. There is no statistically significant difference in mathematic achievement proficiency levels on the Tennessee Comprehensive Assessment Program (TCAP) between students who participate in looping and those who do not based on gender.
6. There is no statistically significant difference in reading-language arts achievement proficiency levels on the Tennessee Comprehensive Assessment Program (TCAP) between students who participate in looping and those who do not based on gender.

Assumptions

The following assumptions were made for this study:

1. All teachers were guided in their instruction by the framework of instructional guidelines and objectives issued by the Tennessee Department of Education, while the methods used in teaching may have been different with each individual teacher.
2. Teachers, according to state guidelines, accurately administered the TCAP test.
3. All TCAP test scores reported were accurate in representing student achievement.
4. The testing environment was adequate for all students.
5. All participating classroom environments were safe, comfortable, and provided students with equal opportunities for success.

Limitations

This study was limited to the following:

1. The Humphreys County School District was the only school district researched.
2. Third grade was the only grade considered for the study.
3. The study consisted of two sets of students. They consisted of students who had been in looping for grades two and three and students who had been in a traditional classroom environment in grades two and three.
4. Only mathematics and reading-language arts proficiency levels were researched for the study.

Definition of Terms

1. Academic Achievement – A measure of progress on a set of tasks as determined by reported results on the Tennessee Comprehensive Assessment Program (TCAP).
2. Advanced – Demonstrates application of complex concepts and skills of the content area.
3. Below Proficient – Demonstrates a lack of understanding of the essential concepts and skills of the content area.
4. Criterion-referenced scores – Scores that measure a student's performance against specific standards or criteria
5. Looping - An early intervention program where a teacher transitions to the next grade level with his or her students for two or more consecutive years.
6. Proficient – Demonstrates general understanding of the essential concepts and skills of the content area.
7. Socioeconomic Status (SES) – The defined status of a child dependent upon their participation in a free and reduced lunch program.

CHAPTER II

Review of Literature

Mele-McCarthy (2007) reported the government first defined its role in education in 1965 under the presidency of Lyndon Johnson with the Elementary Secondary Education Act (ESEA). The government redefined its role in 1994 during a reauthorization of the ESEA with the Improving America's Schools Act (IASA) and then again with the No Child Left Behind (NCLB) Act of 2001 (Mele-McCarthy, 2007).

NCLB is a federal law designed to improve the performance of primary and secondary schools by increasing the standards of accountability for states and schools (NCLB Act of 2001, 2008). Mele-McCarthy (2007) stated, "NCLB requires states to develop rigorous academic standards that define what all students should know and be able to do at specific grade levels" (p. 2).

Since the enactment of NCLB, criticism has surfaced. Draper (2004) reported that some schools are either eliminating programs or lessening the amount of time they are offered to improve their students' test scores. One example is Physical Education. Draper (2004) verbalized, "Physical education is turning into the benchwarmer of school subjects" (p. 1). Kinsey reported, "We've seen a pendulum swing toward academics and away from approaches that pay attention to what's happening to students emotionally and socially" (Pardini, 2005, ¶ 5).

Butzin (2004), the founder of The Institute for School Innovation, stated the following:

In response to high-stakes testing and higher standards for even the most challenging students, schools have responded by talking louder. They haven't changed the way they teach. Instead, they push more papers in front of the kids, keep them off the playground, and take away music and art. (p. 307)

Draper (2004) relayed one of the reasons behind this movement was the result of schools being forced to improve student achievement scores.

While specific programs are being eliminated, other innovative programs are being introduced. "With federal legislation such as NCLB, school districts are under substantial pressure to show improvement in their students' academic functioning. Not surprisingly, many are adopting new programs to address this need," stated Schaefer (as cited by Savrock, 2005, p. 2).

Butzin (2004) developed her own solution to the problems associated with NCLB, triangulated learning. Butzin stated, "It takes on a team approach to instruction and gives teachers the time and techniques to meet higher standards without stifling young children's natural desire to play and explore" (p. 308). Triangulated learning allows children to work at their own pace, while learning in the styles that best address their needs.

DelViscio and Muffs (2007) found a school in Newburgh, New York is implementing a program that borrowed from both looping and departmentalization. They defined Looping as the practice of advancing a teacher with his or her students after one year to the next grade level, then looping back to begin with a new group.

Departmentalization entails a team of teachers working together as subject-area specialists (DelViscio & Muffs, 2007).

The founder of the Waldorf Schools, Rudolf Steiner, first instituted the looping method in the early 1900's in Germany. He believed students needed and would benefit from long-term relationships with their teachers. In the Waldorf Schools, teachers stayed with their students for eight consecutive years, beginning in grade one (Becker et al., 1997).

While Japan and Israel have practiced the teaching method for many years; looping was first introduced in the United States in 1913 by the Department of Education as teacher rotation (Grant, Johnson, & Richardson, 1996). Other terms for looping include two-cycle teaching, student teacher progression, family style teaching, and multi-year instruction.

Capp and Elliott (2003) emphasize, "No longer do we mandate certain sets of books that must somehow be covered from September through June; now we specify student performance" (¶ 3). They note if schools combine these mandates with the familiarity gained in staying with the same teacher over two or three grade levels there will be more success.

The many benefits supporting looping as an effective teaching method are often discussed when the possibility of implementation arises within a school. According to the Connecticut Education Association News Desk (2006), the dividends from looping begin to accrue the very first day of the second school year while other teachers are still struggling to learn the names of their new students and

explaining new classroom rules. While that benefit becomes apparent the first day of school, others surface as the students and teacher progress together.

Grant and Johnson (as cited in Burke, 1999, p. 3) believe another benefit to looping as the lower level of stress in transitioning between grade levels. Many children often have a great amount of anxiety about starting a new year with fresh classmates and in getting acquainted with a new teacher. Gaustad (1998) added that reducing the anxiety level might in turn increase a child's confidence level both socially and academically.

East Lyme Middle School's (ELMS) website (2007) indicated they implement looping in grades five through eight. ELMS is located in Niantic, Connecticut and has been recognized by the United States Department of Education as a National Blue Ribbon School of Excellence and by The New England League of Middle Schools in 2003 as a Spotlight School.

School personnel at ELMS have addressed some questions and concerns regarding the looping program in their particular school. Website visitors questioned how their special-needs child will manage in the looping classroom. In response, they disclosed that special-needs students need stability and consistency just as other students do (ELMS, 2007). In the looping classroom there is often the formation of a close-knit protective environment that is needed by the special-needs child.

Another question addressed teachers having the same parents over two years. According to the website of East Lyme Middle School, their teachers feel by the second year they have a concrete sponsorship from their parents (ELMS, 2007). The

parents are happy to see their children in a strong and dependable relationship with their teacher.

In a study conducted by G. Nichols and J. Nichols (2002) exploring the impact of looping on parental attitudes, the following was found:

A student's simply remaining with the same teacher and cohort group for multiple years may have several positive outcomes, including more positive attitudes toward the school and the teacher. In addition, involvement in multiyear looping environments was found to be a significant predictor of positive parent perceptions of student motivation and attitude toward the school environment. (p. 6)

The participants of this study included more than four hundred parents. Of the sample, more than one hundred were single parents and nearly two hundred had children receiving reduced or free lunches. The parents had students ranging from grades Kindergarten through fifth grade (Nichols & Nichols, 2002).

ELMS (2007) personnel also shared that their teachers feel they work much better with the parents in monitoring the children and developing plans on how to meet their children's needs. Moore commented on the same advantage in his website post on September 26, 2002, regarding grade looping. Moore (2002) stated, "Another advantage to keeping classes for two years or more is teachers' familiarity with each child's needs" (¶ 13). He continued by quoting Wood, "Knowing a student's strengths, weaknesses, what works for them – you start out that second year already

aware of what they're capable of, what problems they have, and where to go with addressing those problems" (Moore, 2002, ¶ 14).

East Lyme Middle School (2007) also focused attention to strategies that appear to work in their school. Thematic planning, simulations, and cooperative grouping are strategies that have been particularly effective in the looping classes at their school. ELMS also conveys that creating a summer bridge of activities can be helpful to those participating.

In 2007, Chaika pointed out in "Looping Through the Years: Teachers and Students Progressing Together" there are several benefits to looping. One benefit: gaining almost an entire month of teaching time in the beginning of the school year (Chaika, 2007). In most cases, teachers would spend time getting to know the students and their learning styles, and the children would spend time becoming acquainted with their new teacher. Nolan, a Highland school principal, disclosed the research on looping provided a richer curriculum for students over several years because it eliminated repetitive instruction in the beginning of the year (Lewis, 1999).

While Looping provides an extra month of teaching time, Childress (2006) of Tolland Middle School informed the Connecticut Education Association that it also allows teachers to easily connect back to and tie in topics and experiences from the previous academic year. Childress (2006) said, "What children already learned in seventh grade in a discussion about the presidency of Franklin D. Roosevelt, for

example, can be incorporated in a discussion in eighth grade about the Great Depression” (p. 2).

Breaking teacher-student relationships every year may not be entirely necessary and it may not be in the best interest of all students involved (Gelman, 2001). “Presumably, one reason that schools generally have less influence on student development than families and peers is the low level of stability and persistence that often exists in school organization” (Nichols & Nichols, 2002, ¶ 3).

Checkley (as reported in Burke, 1999, p. 3) avowed much of a young child's learning is directly related to developed relationships and is social in nature. Establishing a closer connection between student and teacher enables a teacher to become more aware of student attitudes, personality traits, multiple learning styles, personal problems, social factors, and other dynamics that affect a student's academic progress. George, Spreul, and Moorefield (1987) stated that in a three-year middle school looping environment teachers seemed to have a better understanding of their students, felt their students were more involved in class discussions, thought their students felt like an actual member of a group, and had a greater sense of classroom control.

According to Rappa (1993), looping not only provides benefits for parents, students, and teachers, but also may allow administrators to embrace high attendance rates and lower discipline referrals. Rappa (as cited on East Lyme Middle School's website, 2007) found the following to be true in the Attleboro School District in Massachusetts:

Student attendance in grades two through eight has been increased from 92 percent average daily attendance (ADA) to 97.2 percent average daily attendance (ADA). Retention rates have decreased by over 43 percent in those same grades. Discipline and suspensions, especially at the middle schools (grades five through eight), have declined significantly. Special education referrals have decreased by over 55 percent, and staff attendance has improved markedly from an average of seven days absent per staff member per year, to less than three. (p. 4)

Another benefit to looping was reported by Hampton, Mumford, and Bond (1997). They expressed, when comparing the students, there were considerable gains in mathematics and reading scores among looping students in the Families are Students and Teachers (F.A.S.T.) program in Cleveland, Ohio. They added the teachers felt a greater sense of ownership in their students' outcomes. Burke (1997) found similar results within his study. Burke went further to add that even when the same teacher taught the two groups, the looping students still had higher scores.

Cutler Ridge Middle School in Miami, Florida undertook the process and decided to loop a group of students from sixth to eighth grade (Bafle, 2004). When this particular group of students took the Florida high-stakes FCAT exam, their scores were distinctly above the remaining eighth graders. More impressive was the fact minority students were equivalent with non-minority students for the first time in the school's history. East Lyme Middle School (2002) reported danger in

presenting achievement test scores as grounds to loop. School personnel feel the benefits of looping cannot be measured by standardized tests.

One of the greatest benefits of looping is linked to accountability within schools and their teachers. Wyland (2006) of Tolland Middle School reported to the Connecticut Education Association that while all other benefits are noted, one of the greatest is as a teacher you are more likely to take a greater proprietary interest in your students than if you only had them for one year. Tolland Middle School principal, Lincoln (2006) reported to the Connecticut Education Association that he believes that teacher accountability is a positive aspect to looping. Lincoln (2006) reported, “Teachers who have students for two or more years realize their increased responsibility in the lives and progress of their students” (p. 2). In looking at the accountability results, Lincoln adds that in their pilot program, their eighth grade students scored significantly above those in the traditional classroom setting.

With many advantages of looping reported, there are several disadvantages as well. Gaustad (1998) reported parent and teacher concerns for relationship conflicts. Just as a teacher and student may appear to have conflicts within their relationship, there may be conflicts among teachers and parents. If parents feel their child has been placed with an ineffective teacher, great amounts of tension can result. Simel conveyed the following (as told by Gaustad, 1998):

Joining a looping class is hard on newcomers, and introducing five or more new students in the second year can be disruptive enough to reduce the benefits of looping for the original students. Some students and teachers also

experience emotional difficulty leaving their classes at the end of a loop. (p. 4)

There may be cases where the child does not feel he or she fits in with his or her peers, or the child may have a learning style that conflicts with the teaching style of the teacher (ELMS, 2007). *Education World* reported, in an article written by Bafle (2006), not all children have the same great experiences. Bafle disputed that children are less exposed to a variety of teaching styles and they do not get the opportunity to form relationships with new students.

“Look before you loop,” says Savrock (2005, p. 1). Savrock conveyed that looping appeared to have little positive effect on academic achievement, attendance, and learning behavior during the first few years of elementary school according to research headed by Schaefer. The study headed by Schaefer looked at a school in Pennsylvania that had looped and one that had not (Savrock, 2005). In looking only at achievement, learning behavior, and attendance, they found after the two-year period, looping did not have any effect.

Most of the disadvantages of looping affect the students directly. However, there is one disadvantage that largely affects the teacher. Gelman (2001) suggested looping for two or more grade levels may require the teacher to master the curricula for multiple grade levels. This may require additional planning time and training.

Setting advantages and disadvantages aside, many schools do come to a decision to move toward the implementation of a looping program, while bearing in mind the factors that affect the implementation of a true looping program. Money is

always a decisive factor in the implementation of educational programs. However, this type of educational reform, as opposed to others, does not require additional classroom space or additional funding as reported by Grant, Johnson, and Richardson (cited by *Looping: A Multiyear Experience*, 2004).

Still, while it is easier and less expensive, it also requires additional training and extra resources to ensure success. Grant, Johnson, and Richardson (1996) reported that many middle-school teachers resisted the idea of looping due to their comfort in the current teaching assignments where they had been for many years. The Attleboro school district decided to provide their teachers with summer workshops to ease their transition into looping. Rocklin Unified School District implemented the looping program in 1993 at their elementary school (Capp & Elliott, 2003). One of the major concerns was that of staffing the unfamiliar teaching strategy. They overcame the unfamiliarity by placing teacher apprentices alongside looping teachers. As the teacher apprentices became excited about the program, they were evaluated more frequently than necessary by building supervisors. Capp and Elliott (2003) reported, “The district was able to equip traditionally prepared new teachers for service, expanding the potential number of multi-year classes” (¶ 11).

ELMS (2002) personnel indicated that not all teachers are candidates for looping. They proposed qualities desired of an effective looping teacher are: one who wants to teach for multiple years, is able to think developmentally about his or her students, has previously experienced a variety of teaching levels, is a risk manager, enjoys a challenge, has formerly implemented effective instructional and

management techniques in the classroom, enjoys collaborating with colleagues, is energetic, and loves children.

Another factor in implementation is the composition of classes. The classes have to be examined and planned carefully (Grant et al., 1996) in order to avoid preexisting student relationship conflicts. They also note that while special needs students may benefit from a looping environment, the classroom as a whole needs not to be over crowded with special needs students. Coughlin (1998) stated, "Schools need to anticipate and plan for social interventions that might be needed and make a commitment to be supportive of individual children and teachers as they adapt to their social environment" (p. 32). Grant et al. (1996) say it is vital to create procedures to resolve resistant problems at the end of the year if immediate attention is not required. They also recommend the evaluation of student placements at the closing of each year.

Deciding which grades to loop appears to be a matter of opinion. Lincoln (1998) stated the idea that stability is very important in the middle school years more than any other time in a student's journey through education. However, one primary teacher believed the transition from year to year with a new teacher can be very stressful for younger children, so they will benefit most (Grant et al., 1996). In the Attleboro School District all teachers loop in grades one through eight (Rappa, 1993) but in Waldorf School one teacher remains with the same class throughout grades one through eight.

In conclusion, some educators and professionals see looping in the classroom as a very effective teaching method but with some disadvantages. Coughlin (1998) expressed the idea that in order for looping to be a beneficial program a school must anticipate the need for social interventions. The school must also have plans in place to carry out the needed interventions. In looking at the research to support looping, Chaika (2007) quoted writer Kurtz in stating, “Research on looping’s effectiveness is somewhat limited, in part because it’s not used on a widespread basis in most school systems. Rather, individual schools indistinctively decide to try out the method with small numbers of teachers” (p. 20). Therefore, despite the available research on the social benefits and drawbacks of looping, few studies examine the effects of looping on academic achievement.

CHAPTER III

Methodology

Overview

The purpose of this chapter is to explain the methodology used in conducting this study. This chapter includes descriptions of research design, sample selection, procedures for collecting data, statistical analyses, and the hypotheses tested.

Research Design

The purpose of this study was to examine the effects of looping on academic achievement proficiency levels of elementary students in the areas of mathematics and reading-language arts in one school in Middle Tennessee. The relationship between achievement and looping was also examined for significance based on gender and SES.

Participants

The participants for this study were third grade students who experienced looping with the same teacher for grades two and three and students who traditionally advanced to the next year with a new teacher in grades two and three. Study participants were third grade students from one school in Middle Tennessee. Students were divided into two groups. Group One consisted of 12 students who were looped for grades two and three. Group Two consisted of 12 students who were in the traditional classroom setting. Students were eliminated if they were pulled

from or added to the looping program. They were also eliminated if they were retained in second grade.

Data Collection Procedures

Permission from the Institutional Review Board of Austin Peay State University was sought for this study (see Appendix A). In 2008, permission was granted for an extension of the study (see Appendix B). Written permission was obtained from the Humphreys County School District and the participating school principal before any research was conducted (see Appendices C and D). The school principal was informed of the specifics of the research study. A roster of looping students and non-looping students was provided with the proper coding by the school principal to ensure security and privacy of all students involved. For proper matching of the sample, each list included the gender and SES of each student. SES was labeled as disadvantaged and non-disadvantaged.

The data collected to measure academic achievement was taken from TCAP Test scores. The TCAP Test is a state mandated achievement test given each spring in the state of Tennessee for grades three through eight. Only Mathematics and Reading-Language Arts scores were used for the study. Once students were matched, performance proficiency levels were collected for each. TCAP breaks performance proficiency into three levels: advanced, proficient, and below proficient.

Data Analysis

As an initial step in the data analysis, the TCAP test proficiency levels were used to evaluate differences in academic achievement. Unpaired *t* tests were conducted to determine if there were any significant differences in achievement test scores between students who had been educated in the looping classroom and those who had received their education in the traditional classroom setting. An analysis of variance (ANOVA) was used to test for statistical significance based on gender and SES. Statistical Package for the Social Sciences 14.0 (SPSS 14.0) was utilized as the statistical software for all analyses. The relationship of each analysis was evaluated at $p < .05$ to test for significance.

SPSS 14.0 was also used to obtain the mean and standard deviation for third grade proficiency levels of the two groups, namely looping and non-looping.

CHAPTER IV

Data and Results

Demographics

The demographics of the two groups for this study were matched based on SES and gender. All of the students included in the sample were between the ages of eight and nine. Only students that were originally placed in the looping program were used for the study. The students were eliminated from the looping group if they transferred in or moved out at any point during the looping process, or if they were retained in grade two. With only 12 students being suitable based on the guidelines outlined, the sample consisted of a total of 24 participants. Table 4.1 illustrates the looping and non-looping distribution of students in math and reading-language arts.

Table 4.1

Distributions for Looping and Non-looping

	Math	Reading-Language Arts
Looping	12	12
Non-looping	12	12

Random selection of group two was accomplished by assigning numbers to each of the eligible students. Eligibility was based on gender and SES. Names were then drawn out of a bucket to obtain group two. Table 4.2 illustrates the distribution of looping and non-looping students in math and reading-language arts based on

gender. Table 4.3 illustrates the distribution of SES for the looping and non-looping groups based on gender.

Table 4.2

Distribution for Gender

	Male	Female
Math		
Looping	6	6
Non-looping	6	6
Reading-Language Arts		
Looping	6	6
Non-looping	6	6

Table 4.3

Distribution for Gender Based on SES

	Male	Female
Looping		
Non-disadvantaged	5	5
Disadvantaged	1	1
Non-looping		
Non-disadvantaged	5	5
Disadvantaged	1	1

Proficiency levels were gathered for each of the 24 students. Table 4.4 illustrates the distribution of proficiency levels between the two groups for math and reading-language arts at the end of grade three.

Table 4.4

Distributions for Proficiency Levels

	Advanced	Proficient	Below Proficient
Math			
Looping	6	5	1
Non-looping	4	7	1
Reading-Language Arts			
Looping	4	7	1
Non-looping	3	6	3

Analyses of Research Questions

The data used in testing the research questions of this study are presented in the following sections. Analysis of the data began with coding proficiency levels as a) advanced = 3; b) proficient = 2; and c) below proficient = 1. SES was coded as a) disadvantaged = 1 and b) non-disadvantaged = 2. Gender was coded as a) female = 1 and b) male = 2. An interpretation of the data follows each of the research questions. The 0.05 alpha level was used in all tests of research.

Research Question 1

Is there a statistically significant difference in mathematic achievement proficiency levels on the Tennessee Comprehensive Assessment Program (TCAP) between students who participate in looping and those who do not?

Null Hypothesis 1

There is no statistically significant difference in mathematic achievement proficiency levels on the Tennessee Comprehensive Assessment Program (TCAP) between students who participate in looping and those who do not.

SPSS 14.0 was used to determine if there was a statistically significant difference between the looping and non-looping groups in the students' third grade mathematics TCAP proficiency levels. The mean for the looping group was 2.42 versus the mean for the non-looping group of 2.25. Therefore, the average students' TCAP proficiency level was between Advanced (3) and Proficient (2). Statistical significance was not found at the $p = .53$ level. The null hypothesis was retained.

Table 4.5 illustrates these results.

Table 4.5

Analysis of Variance for Math Proficiency Levels Between Groups

Source	N	Mean	SD	df	t	p
Looping	12	2.42	.67	22	.63	.53
Non-looping	12	2.25	.62			

$p < .05$

Research Question 2

Is there a statistically significant difference in reading-language arts achievement proficiency levels on the Tennessee Comprehensive Assessment Program (TCAP) between students who participate in looping and those who do not?

Null Hypothesis 2

There is no statistically significant difference in reading-language arts achievement proficiency levels on the Tennessee Comprehensive Assessment Program (TCAP) between students who participate in looping and those who do not.

SPSS 14.0 was used to determine if there was a statistically significant difference between the looping and non-looping groups in the students' third grade reading-language arts TCAP proficiency levels. The mean for the looping group was 2.25 versus the mean for the non-looping group of 2.00. Therefore, the average students' TCAP proficiency level was between Advanced (3) and Proficient (2). Statistical significance was not found at the $p = .38$ level. The null hypothesis was retained. Table 4.6 illustrates these results.

Table 4.6

ANOVA for Reading-Language Arts Proficiency Levels Between Groups

Source	N	Mean	SD	df	t	p
Looping	12	2.25	.62	22	.90	.38
Non-looping	12	2.00	.74			

$p < .05$

Research Question 3

Is there a statistically significant difference in mathematic achievement proficiency levels on the Tennessee Comprehensive Assessment Program (TCAP) between students who participate in looping and those who do not based on SES?

Null Hypothesis 3

There is no statistically significant difference in mathematic achievement proficiency levels on the Tennessee Comprehensive Assessment Program (TCAP) between students who participate in looping and those who do not based on SES.

SPSS 14.0 was used to determine if there was a statistically significant difference in math TCAP proficiency levels of the disadvantaged and non-disadvantaged students in the looping and non-looping group. The mean for SES was 1.83 for both groups.

The mean for the math looping group's proficiency level was 2.42, whereas the mean for the non-looping group's proficiency level was 2.25. Therefore, the average students' TCAP proficiency level was between Advanced (3) and Proficient (2). Statistical significance was not found at the $p = .53$ level. The null hypothesis was retained. These results are illustrated in tables 4.7 and 4.8.

Table 4.7

Analysis of Variance for Math Proficiency Levels Between Groups Based on SES

Source	SS	df	Mean Square	F	p
<hr/>					
SES					
Between groups	0.00	1	.000	.000	1.00
Within groups	3.33	22	.152		
Total	3.33	23			
<hr/>					
Math					
Between groups	0.17	1	.167	.400	.53
Within groups	9.17	22	.417		
Total	9.33	23			

 $p < .05$

Table 4.8

Means and Standard Deviations for Math and SES

	Group	N	Mean	Standard Deviation
SES	1-Looping	12	1.83	.39
	2- Non-looping	12	1.83	.39
Math	1-Looping	12	2.42	.67
	2-Non-looping	12	2.25	.62

Research Question 4

Is there a statistically significant difference in reading-language arts achievement proficiency levels on the Tennessee Comprehensive Assessment Program (TCAP) between students who participate in looping and those who do not based on SES?

Null Hypothesis 4

There is no statistically significant difference in reading-language arts achievement proficiency levels on the Tennessee Comprehensive Assessment Program (TCAP) between students who participate in looping and those who do not based on SES.

An analysis of variance was performed using SPSS 14.0 to determine if there was a statistically significant difference in reading-language arts TCAP proficiency levels of the disadvantaged and non-disadvantaged students in the looping and non-looping group. The mean for SES was 1.83 for both groups.

The mean for the reading-language arts looping group's proficiency level was 2.25, whereas the mean for the non-looping group's proficiency level was 2.00. Therefore, the average students' TCAP proficiency level was between Advanced (3) and Proficient (2). Statistical significance was not found at the $p = .38$ level. The null hypothesis was retained. These results are illustrated in tables 4.9 and 4.10.

Table 4.9

Analysis of Variance for Reading-Language Arts Proficiency Levels Between Groups Based on SES

Source	SS	df	Mean Square	F	p
SES					
Between groups	0.00	1	.000	.000	1.00
Within groups	3.33	22	.152		
Total	3.33	23			
Reading-Language Arts					
Between groups	0.38	1	.375	.805	.38
Within groups	10.25	22	.466		
Total	10.63	23			

p < .05

Table 4.10

Means and Standard Deviations for Reading-Language Arts and SES

	Group	N	Mean	Standard Deviation
SES	1-Looping	12	1.83	.39
	2- Non-looping	12	1.83	.39
Reading-Language Arts	1-Looping	12	2.25	.62
	2-Non-looping	12	2.00	.74

Research Question 5

Is there a statistically significant difference in mathematic achievement proficiency levels on the Tennessee Comprehensive Assessment Program (TCAP) between students who participate in looping and those who do not based on gender?

Null Hypothesis 5

There is no statistically significant difference in mathematic achievement proficiency levels on the Tennessee Comprehensive Assessment Program (TCAP) between students who participate in looping and those who do not based on gender.

An analysis of variance was performed using SPSS 14.0 to determine if there was a statistically significant difference in math TCAP proficiency levels based on the gender of students in the looping and non-looping group. The mean for gender was 1.50 for both groups.

The mean for the math looping group's proficiency level was 2.42, whereas the mean for the non-looping group's proficiency level was 2.25. Therefore, the average students' TCAP proficiency level was between Advanced (3) and Proficient (2). Statistical significance was not found at the $p = .53$ level. The null hypothesis was retained. These results are illustrated in tables 4.11 and 4.12.

Table 4.11

Analysis of Variance for Math Proficiency Levels Between Groups Based on Gender

Source	SS	df	Mean Square	F	p
Gender					
Between groups	0.00	1	.000	.000	1.00
Within groups	6.00	22	.273		
Total	6.00	23			
Math					
Between groups	0.17	1	.167	.400	0.53
Within groups	9.17	22	.417		
Total	9.33	23			

p < .05

Table 4.12

Means and Standard Deviations for Math and Gender

	Group	N	Mean	Standard Deviation
Gender	1-Looping	12	1.50	.52
	2- Non-looping	12	1.50	.52
Math	1-Looping	12	2.42	.67
	2-Non-looping	12	2.25	.62

Research Question 6

Is there a statistically significant difference in reading-language arts achievement proficiency levels on the Tennessee Comprehensive Assessment Program (TCAP) between students who participate in looping and those who do not based on gender?

Null Hypothesis 6

There is no statistically significant difference in reading-language arts achievement proficiency levels on the Tennessee Comprehensive Assessment Program (TCAP) between students who participate in looping and those who do not based on gender.

An analysis of variance was performed using SPSS 14.0 to determine if there was a statistically significant difference in reading-language arts TCAP proficiency levels based on the gender of the students in the looping and non-looping group. The mean for gender was 1.50 for both groups.

The mean for the reading-language arts looping group's proficiency level was 2.25, whereas the mean for the non-looping group's proficiency level was 2.00. Therefore, the average students' TCAP proficiency level was between Advanced (3) and Proficient (2). Statistical significance was not found at the $p = .38$ level. The null hypothesis was retained. These results are illustrated in tables 4.13 and 4.14.

Table 4.13

Analysis of Variance for Reading-Language Arts Proficiency Levels Between Groups Based on Gender

Source	SS	df	Mean Square	F	P
<hr/>					
Gender					
Between groups	0.00	1	.000	.000	1.00
Within groups	6.00	22	.273		
Total	6.00	23			
<hr/>					
Reading-Language Arts					
Between groups	0.38	1	.375	.805	.38
Within groups	10.25	22	.466		
Total	10.63	23			

p < .05

Table 4.14

Means and Standard Deviations for Reading-Language Arts and Gender

	Group	N	Mean	Standard Deviation
Gender	1-Looping	12	1.50	.52
	2- Non-looping	12	1.50	.52
Reading-Language Arts	1-Looping	12	2.25	.67
	2-Non-looping	12	2.00	.74

Summary

The analysis of third grade TCAP proficiency levels for mathematics and reading-language arts was investigated to determine if there was a statistically significant difference in proficiency levels of students who were in a looping classroom compared to those students in a traditional classroom setting. The two groups of students were also compared based on SES and gender. The six null hypotheses were addressed, and no statistical significance was found for any of the six null hypotheses. Therefore, all null hypotheses were retained. As the study found, looping in grades two and three did not have any impact on TCAP proficiency levels for mathematics and reading-language arts for students in grade three. Furthermore, gender and SES did not have any impact on proficiency levels of students in the looping program.

CHAPTER V

Discussion, Conclusions, and Recommendations

The participation in a looping program for grades two and three was hypothesized to have no impact on TCAP proficiency levels for math and reading-language arts for students in grade three. Consequently, an investigation was conducted to see if there was any statistical significant difference in proficiency levels of the students in the looping group and non-looping group for the subject areas of mathematics and reading-language arts. The study also compared the two groups based on SES and gender.

Discussion

There were a total of 24 participants: 12 in the looping group and 12 in the non-looping group. The two groups were equal in number of male and female. They were also equal in number of disadvantaged and non-disadvantaged students. Furthermore, the students were similar in ages, ranging from age eight to nine. TCAP proficiency levels were provided to the researcher for each of the students in the two groups. To ensure the confidentiality of each student, no identifying marks were present relating to the identities of the students.

TCAP proficiency levels were entered into Statistical Program for the Social Sciences 14.0 for each of the 24 third grade students along with their proficiency level, SES, and gender. An unpaired *t* test was performed for Hypotheses One and

Two, and no significance was found. Therefore, Hypotheses One and Two were retained.

A one-way ANOVA was performed for Hypotheses Three, Four, Five, and Six and no statistical significance was found for any of the four. Therefore all null hypotheses were retained.

Conclusions

This study was conducted to investigate whether TCAP proficiency levels were impacted or influenced by the participation in a looping classroom for two consecutive years. No statistically significant difference was found in proficiency levels of the looping group compared to the non-looping group in mathematics and reading-language arts. Furthermore, no statistically significant difference was found when the same two groups were compared based on SES and gender. It is concluded that looping in grades two and three has no impact or influence on student proficiency levels in mathematics and reading-language arts in grade three. However, if using these results to determine if looping would be effective, caution should be taken, while these results were taken from a sample consisting of 24 participants.

Recommendations

This section presents a series of recommendations that future researchers may want to investigate relative to looping and its impact on academic achievement. These recommendations are as follows:

1. This research needs to be on-going in comparing looping and its impact on TCAP proficiency levels in mathematics and reading-language arts.
2. This study should be conducted with a more diverse set of students, perhaps in a larger school district that participates in the looping process on a larger scale.
3. This study should be conducted between grades two and three to see if there is any statistically significant difference in student gains in mathematics and reading-language arts.

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Appendix A

Approval Letter from Austin Peay State University

Institutional Review Board



March 24, 2007

Protocol # 06-021
Title: *Effects of Low-dose Radiation on the Immune System*
Principal Investigator: Dr. John D. Miller

Dear Dr. Miller:

Thank you for your recent submission. We appreciate your cooperation with the human research review process. We have received your request for expedited approval of the new study and choose to waive this type of study under the expedited review under FDA and NIH (Office for Protection from Research Risks) regulations. Your application is approved.

We would like to remind you that your application is approved through the calendar year. The protocol will remain in effect until the next application is reviewed. This approval is subject to APSU Policies and Procedures governing all other aspects of research. The IRB will still review this protocol and reserves the right to require any changes if any unapproved studies are used during their review.

If you planned permission to conduct your study as described in your application effective immediately, the study must meet the continuing review level, or before March 24, 2007, unless closed before that date. If closed prior to the start of your study, your study has been completed and the form to request an annual review of your study is attached. Please submit the application form prior to March 24, 2007.

Please note that any changes to the study as approved must be promptly reported and approved. Some changes may be approved by telephone review, others require full board review. If you have any questions or require additional information, contact me at (227) 541-5085, ext. 741, email pender@apsu.edu.

Again, thank you for your cooperation with the APSU IRB and the human research review process. Best regards,

Sincerely,


Dr. Linda Pender
Institutional Review Board
Austin Peay State University
Clarksville, TN 37040

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Phone: 227-5085 • Fax: 227-5114 • E-mail: apirb@apsu.edu
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Appendix B

Appendix C

Approval Letter from Humphreys County Board of Education

Jessica S. Waggoner
1086 Brown Mill Rd.
McEwen, TN 37111
931-582-3466 H
931-622-6473 C

January 7, 2008

Mr. James Long, Director of Schools, Humphreys County

My name is Jessica Waggoner and I am currently seeking my Education Specialist degree in Administration and Supervision from Austin Peay State University. One of the requirements is to conduct a research study project. The topic I have chosen is "The Effectiveness of Looping at the Elementary Level."

With your permission, I would like to analyze specific scores from Waverly Junior High School. The specific scores would be fourth Math and Reading/Language Arts TCAP proficiency levels of students who "looped" in grades two and three at Waverly Elementary School. I would then like to compare their proficiency levels to fourth grade students who were in the traditional classroom setting for the second and third grade years. I will need proficiency levels, socio-economic status, and the gender of each student identified with names left anonymous.

Upon completion of my project, I will provide you with a copy of the results. Please sign and date this letter and return it to me, indicating that I have your permission to analyze fourth grade TCAP proficiency levels of students at Waverly Junior High School.

Thank you,

Jessica S. Waggoner
B.S. in Education, 2000 APSU
M.A. in Educational Leadership, 2003 APSU



Appendix D

Approval Letter from Waverly Junior High

Jessica S. Waggoner
1686 Brown Mill Rd.
McDowell, TN 37360
(423) 325-3406 H
(423) 325-3406 C

December 9, 2007

Mr. Andy Daniels, Principal, Waverly Junior High School

My name is Jessica Waggoner and I am currently working my Education Specialist degree in Administration and Supervision from Austin Peay State University. One of the requirements is to conduct a research study project. The topic I have chosen is "The Effectiveness of looping at the Elementary Level".

With your permission, I would like to analyze fourth grade Math and Reading/Language Arts TCAP proficiency levels of students who "looped" in grades two and three. These would be students in fourth grade during the 2006-2007 school year. I would then like to compare their proficiency levels to students who were in the traditional classroom setting for the second and third grade years. I will need proficiency levels, socio-economic status and the gender of each student. Data will be left anonymous.

Upon completion of my project, I will provide you with a copy of the results. Please sign and date this letter and return it to me, indicating that I have your permission to analyze fourth grade TCAP proficiency levels of students at your school.

Sincerely,

Jessica S. Waggoner
Ed.S. in Education, 2000, APSU
M.A. in Educational Leadership, 2005, APSU

