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Does Looping Enhance Student Achievement?

Robyn G. Meeks
Georgia College & State University

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Robyn G. Meeks   *Dr. Sharon Smoot*
                                                    Faculty Sponsor

ABSTRACT

The purpose of this study is to investigate the pros and cons of looping, while discovering its social and academic effects on student achievement. This was done by analyzing the standardized test scores in reading, language arts and math of a control group that did not loop and an experimental group that looped for one year. Results showed there was no significant difference in academic achievement between the group of students that looped and the students that did not loop in grades 4-5. There was statistical significance in the improvement of reading test scores from the students that looped. Although statistical significance was found in these scores, the effect size was very small; therefore generalizations regarding the benefits of looping are inappropriate.

INTRODUCTION

Looping is a term coined by Jim Grant author of *The Looping Handbook* (OERI, 1997). It is the practice of a teacher teaching the same group of students for two or more consecutive years. Looping is also known as continuous learning, multiyear placement, and family-style learning (Roberts, 2005). Whatever the label, looping is a teaching style that dates back to the one-room schoolhouse that is just now becoming a current educational fad.

Research notes that looping can be beneficial to both the student and the teacher. However, this is only beneficial when both parties are willing to participate. This is something that cannot be forced or neither group will reap the full benefits from the program. The key to student success is the way the teacher properly approaches looping. The best quality of looping is that it pro-

motes a stronger sense of community and family among students, parents, and teachers (OERI, 1997).

There has been a great deal of research completed on the benefits of looping to students socially and academically, but there has been little research on looping and standardized test achievement. The purpose of this study was to research the pros and cons of looping, while simultaneously discovering the effects of looping on students' achievement.

LITERATURE REVIEW

Arguments for Looping for Students

Research shows that shy students benefit from looping because it aides in stress reduction (Lacina-Gifford, 1997). Students are familiar with their teacher and classmates and have an understanding of what will be required of them in the upcoming year (Roberts, 2005). This allows them to feel comfortable taking risks and allows them to develop more self-confidence (Hegde, 2004). Along with the development of self-confidence, students become intrinsically motivated. This is mainly because the teacher plans lessons that are personalized to the students' learning styles, allowing more opportunities for interdisciplinary approaches to the curriculum (Walker, 2004).

Benefits of Looping for Teachers

Teachers also benefit from looping. Research shows that teachers gain a deeper sense of job satisfaction when looping, but the most productive benefit is that they gain extra teaching time (OERI, 1997). They can save up to a month of instructional time at the beginning of the second year because they do not have to learn the students' learning styles, strengths, weaknesses, interests, and home situations (Vann, 1997). Teachers are able to plan lessons based on students' prior knowledge. They do not have to guess or assume what was taught the previous year. They already know what the students understand and are able to build upon that knowledge (Walker, 2004).

According to Nichols (2002), teachers are less likely to abandon ideas students have trouble understanding. In a traditional school setting, teachers will check to make sure the majority of the class grasps the concept and move on, but in a looping setting, teachers are able to work at a slower pace, ensuring all students understand (Walker, 2004). Looping also allows the opportu-

nity for the teacher to assign work over the summer. Students can be given projects or reading assignments to complete, or the teacher can schedule a visit with the students at the local ice cream shop (Roberts, 2005).

Benefits of Looping for Parents

Looping is a concept that some parents are apprehensive about. They are not familiar with the program and are unaware of its benefits. One benefit for parents is that they are able to get to know their child's teacher on a more personal level (Nichols, 2002). This allows the parent to develop a confidence in the teacher that is not developed in a traditional school setting.

A second benefit for parents is that they can opt to remove their child after the first year (McAteer, 2004). Looping is not something that a student must be involved in. Parents are able to remove their child from the program if they are not satisfied for any reason.

School and Academic Benefits

Research states that looping creates a classroom environment that engages students (Butzin, 2004). They develop a sense of pride and look forward to coming to school rather than dread it. Schools that practice looping have higher attendance rates and lower discipline referrals (McAteer, 2004). These schools also have improved test results, fewer special education referrals, and a reduced retentions rate (Gaustad, 1998).

Elliott (2003) states that all socioeconomic levels of students are able to progress much more successfully when looping than when in a traditional classroom. Students are also able to learn more at their own pace without the restraints of a future classroom teacher and curriculum. Students are not discouraged, but are free to move into more challenging material as they are ready (Elliott, 2003). Looping allows students the opportunity to use resource materials and textbooks from various grades to gain a deeper and more complex understanding of a concept.

Benefits of Looping in Regards to Standardize Testing

Although very little research has been conducted to understand the specific benefits of looping on standardized testing, Butzin (2004) found that test scores of students that loop are consistently higher than those of a traditional student. This can be attributed to the fact that a teacher who has been with

a group of students for a couple of years knows them inside and out, and therefore can better equip them for the test. Researchers also believe that the looping environment provides students with a more stable environment and reduces test anxiety (McAteer, 2001).

Arguments Against Looping for Students and Parents

The biggest fear for a child entering into a looping classroom is the fear of being placed with an undesirable teacher (Nichols, 2002). Parents have a fear that their child will receive a teacher they feel is not as good as another teacher, and students fear they be assigned to a teacher they have difficulties getting along with. A second factor to consider when entering into a classroom that plans to loop is the curriculum. Teachers that loop are not confined to teach certain topics in certain grades, so if a child makes the decision to opt out of the looping program or moves there may be certain elements of the curriculum they have not been taught (Vann, 1997).

Social issues should also be considered when thinking about looping. In a traditional setting, students have the opportunity to change teachers and classmates each year. Looping limits a child's opportunities to make new friends (Vann, 1997). They are with the same set of classmates for a minimum of two years. In one aspect, this can lead to tension because the students get to know each other too well and may become tired of one another (McAteer, 2001). However, in another aspect, students may become too attached to their classmates and experience emotional difficulty leaving their classes at the end of a loop (Gaustad, 1998).

Arguments Against Looping for Teachers and Schools

Just as the biggest fear of a student is being assigned an undesirable teacher, teachers fear of being assigned an undesirable class (Roberts, 2005). A negative effect of looping is if the teacher is given a difficult class, he or she is responsible for teaching them for two or more years. This is a fear that drives many teachers away from looping. A teacher also fears the personalities of their students' parents. The possibility of having an overbearing parent discourages teachers (McAteer, 2001).

Teachers also have to master every grade level that is taught. In a traditional school, teachers are responsible for one grade level; this is not the case in a school that loops. Teachers are responsible for mastering two or more

curricula. This may lead to lost time at the beginning and throughout the school year as the teacher strives to master an unfamiliar content (Vann, 1997).

I found the research to be very contradictory. Concepts that one author viewed as a benefit to looping, another author would interpret differently, making an argument against looping. The purpose of this study was to investigate the pros and cons of looping socially and academically while discovering the effects of looping on standardized test achievement. I did not expect to discover a significant difference in student achievement on standardized tests in reading, math or language arts due to looping. I expected to find that the students in both environments would show similar gains on Georgia CRCT results from grades four to five.

METHODS

PARTICIPANTS AND SETTING

A group of 17 students from one elementary school without looping was compared to a group of 15 students from a different elementary school who looped from grades four to five. The students participating in this study from the control school were assigned as an intact class of fourth graders by the principal in 2003, and were promoted to various fourth and fifth grade teachers the following fall. There were 7 girls and 10 boys in the class. There were 11 Caucasian students, 5 Black students, and 1 Asian student. The students participating in this study from the experimental class were similarly assigned to a fourth grade class in 2003 by the principal, and they looped to grade five with the same teacher.

The elementary schools are both located in the middle of the state approximately near Dublin, Georgia. The experimental school was in East Dublin, which has a population of 2,603 people, and 63.8% of the adults have a high school diploma. Residents between the ages of 25-44 have a median income of $24,412. The poverty level is 15.9% (East Dublin, GA, 2006). The school services students in grades three through five. There are approximately 1,145 students enrolled in the school.

The control school is located just outside the city limits of Dudley. Dudley has a population of 464 people, and 73.2% of the adults have a high school

diploma. Residents between the ages of 25-44 have a median income of $41,442. The poverty level is 11.5% (Dudley, GA, 2006). The school services students in grades Pre-K through 5th grade. There are approximately 1,006 students enrolled in the school.

INSTRUMENTATION

This study compared the Georgia Criterion-Referenced Competency Test (CRCT) results for both sets of students in grades four and five (GADOE, 2006). Test results were analyzed in reading, language arts, and mathematics content areas. The total score for each student in each content area was documented, discovering student gains from their fourth to fifth grade school years.

PROCEDURES

First, I received permission from both school principals to conduct this study. Next, I obtained student CRCT scores from school records. It was not necessary for me to obtain parent consent, because I used scores that are commonly analyzed to improve teacher instruction. Student test results were easy to obtain for the classroom that looped, but I had to search through each fourth and fifth grade teacher's scores to find student scores for those in my third grade classroom during 2003 who served as the control group.

I compared the CRCT scores of the group of students that were in my third grade class in 2003 in the areas of reading, language arts, and math; their forth grade scores in reading, language arts, and math; and their fifth grade scores in the same areas to the scores of a class at the other elementary school who entered into their teacher's room in 2004 and looped with her to fifth grade.

Once all the test results were gathered, I entered each student's total score from into an Excel spreadsheet and used the computer program Statistical Program for the Social Sciences (SPSS) to analyze the data.

DESIGN AND DATA ANALYSIS

This was a causal-comparative study. An analysis of covariance was done on the 5th grade scores with the 4th grade scores as the covariate. Effect sizes were calculated. A two group t-test was used for the 4th grade CRCT results to determine if the classes were equivalent. The alpha level was set at .01.

RESULTS

The purpose of this study was to determine if looping has a positive effect on standardized test scores. Independent t-test on the fourth grade math scores showed that the two groups were equivalent $[t\ (26) = 1.28, p = 21]$ during the previous year. See Table 1. The ANCOVA on the fifth grade math scores with the fourth grade math scores as the covariate was not statistically significant.

Since the reading and language arts test scores had different scales at the different schools in the fifth grade, the scores for each group were converted first to z-scores and then to T-scores with a mean of 50 and a standard deviation of 10. On the fourth grade language arts tests, there was no statistically significant difference between their means using a paired t-test $[t\ (26) = 0.03, p = .97]$. On the fourth grade reading test, there was no statistically significant difference between their means using a paired t-test $[t\ (26) = 0.17, p = .87]$.

Using ANCOVA, there was not a statistically significant difference between the fifth grades' language arts scores using T-scores as the unit of measure and the fourth grade scores as the covariate $[F\ (2,25) = 2.29, p = .12]$. On the fifth grade reading test the control group had a T-score mean of 49 $(SD = 10)$ and the experimental group had a T-score mean of 50 $(SD = 10)$. Using the pretest scores from the fourth grade test as the covariate, the ANCOVA was statistically significant $[F\ (2,25) = 7.03, p = .004$, Partial Eta Squared $= .36$ and observed power $= .90]$. The adjusted means were the same as the T-score means, control was 49 and experimental was 50. However the effect size using Cohen's d was only .10, or a 3% difference between the groups.

DISCUSSION

The results from this study supported the hypothesis that there would be no significant difference in standardized test scores of the students who looped compared to students who did not loop, except in reading. Although statistical significance was found in these scores, there was little practical significance to show a benefit to looping. One threat to validity present in this study was the fact that the two groups of students did not attend the same elementary school. Although they attended schools in the same county system, there was the possibility of a difference in socioeconomic status, as discovered in the census data. Having different teachers and different teaching methods may also have had an impact on test scores.

Overall, the conclusion of this study shows there was little to no significant difference in standardized scores of students who looped compared to those who did not loop over the period of one year. These results pose the question: Would these results have been different if the students had been looped for two or more years? Research shows students benefit socially from looping, but this small study did not find much of a difference in their performance on standardized tests. It takes an open-minded, enthusiastic teacher to loop with a group of students for multiple years. The teacher must be willing to learn a new curriculum each year and deal with the same set of students as they grow older and become more relaxed with one another. Although these test results did not show looping to be beneficial in terms of improving standardized test scores, it is up to the principal and teachers to decide if looping would benefit their group of students.

TABLE 1

CRCT Results for Mathematics

		M	S.D.	N
4th - Math	Control	324	21	12
	Experimental	314	18	16
	Total	318	19	28
5th - Math	Control	337	27	12
	Experimental	333	18	16
	Total	335	22	28

Note: ANCOVA results are not significant [F (2,25) = 0.58, p = .46].

TABLE 2

CRCT Results for Language Arts and Reading

Control Group

	N	Min	Max	M	SD
Language Arts Fourth Grade	12	297	365	336	17
Language Arts, Fifth Grade	12	798	840	829	13
Reading, Fourth Grade	12	304	399	354	28
Reading, Fifth Grade	12	795	850	823	16

Experimental Group

	N	Min	Max	M	SD
Language Arts, Fourth Grade	16	278	324	305	14
Language Arts, Fifth Grade	16	291	340	304	14
Reading, Fourth Grade	16	274	373	314	28
Reading, Fifth Grade	16	300	361	325	20

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