Increasing Reading Test Scores Using Reading-at-Home and Intervention Programs

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A Special Project

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ABSTRACT

The purpose of this project was to investigate whether reading-at-home or intervention programs had more impact on students' achievement in reading as measured by the Measurement of Academic Progress scores. The researcher wanted to know which group of students had the largest growth on the reading Measurement of Academic Progress assessment from fall to spring. The students received a pre and post Rasch Unit score from this assessment. The results were compared to see whether reading-at-home or reading intervention programs had more impact on test scores. The results indicated that each of the groups made growth from fall to spring on the Measurement of Academic Progress. However, students who received additional intervention support grew the most.

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Introduction

Background for the Project

The subject of reading impacted all other subject areas. According to the research, students who read well tended to be more successful in school and in life. House Bill 1209, also known as Washington's Education Reform Act, became law in 1993. The focus of the law was to establish goals for improving student achievement in core subjects, including reading. The law became one of the major driving forces behind the push to improve the quality of students' education. Following this act the Essential Academic Learning Requirements were developed. The Essential Academic Learning Requirements were aligned with fourth, seventh, and tenth grade curriculum. Later the Essential Academic Learning Requirements became more focused on each of the grade levels. Teachers were required to focus the curriculum to meet the Grade Level Expectations.

Another act that motivated teachers to better support all students was the No Child Left Behind Act signed by George Bush in January, 2002. The major focus of this act was to provide all children with a fair, equal and significant opportunity to obtain high-quality education (OSPI, 2007).

In response to those reform initiatives, all of the elementary teachers in the district under review were attempting to lay a foundation to provide students with high quality education, with an emphasis on reading. Two ways that the teachers in these elementary schools helped students that were struggling with reading, according to district policy,

were through early intervention in the school setting and through reading-at-home programs.

Reading-at-home programs had a positive impact on pre-school children. The sooner students were introduced to books the better. According to Fielding (1998):

> When parents have read aloud with children twenty minutes a day from birth, the child has entered kindergarten with a minimum of 608 hours of pre-literacy experience. One of the best predictors of success is a five-year-old's reading readiness. (p.69)

The school district studied required students to read twenty minutes a day, five days a week, through elementary school. The challenge was getting parents to buy into the importance of reading with children and the impact reading at home had on students' brains. According to Fielding (1998):

> The parents may not have understood brain physiology, but they could identify the common-sense reasons without it: play catch with your children to develop ball handling skills; swim with them to develop water safety skills; read with them to develop reading skills. (p. 69)

Research showed that practice with reading improved students' reading skills and brain development dramatically from birth to age nine. This research was shared with parents to help the parents gain a better understanding of the school's philosophy of reading with children.

Students not performing at grade level received intervention programs to help increase the ability to read. The student's age when intervention was received was vital to results.

The later the interventions the less impact the intervention had. According to Fielding (1998):

> We have learned that for 90% to 95% of poor readers, prevention and early intervention programs that combine instruction in phoneme awareness, phonics, fluency development, and reading comprehension strategies, provided by well-trained teachers, can increase reading skill to average reading levels. (p.167)

Teachers at the researcher's school were offering early interventions within the school setting and were encouraging reading-at-home programs. However, the teachers found that some readers were not on grade level. While both reading-at-home and early intervention were believed to be great strategies to help students learn to read, the researcher wanted to know which had more impact on students' reading scores. These scores were measured by the Measurement of Academic Progress scores in third grade.

Statement of the Problem

This study investigated whether reading-at-home or intervention programs had more impact on students' achievement in reading as measured by the Measurement of Academic Progress scores. The researcher wanted to find out if more effort should have been put into intervention programs or reading-at-home.

Purpose of the Project

The results of this project were shared with the teachers of the students. That feedback was intended to help guide how the building supported students in their journey to learn to read. The data collected and shared with teachers was passed along to parents. The purpose of gathering and sharing the findings was to better educate teachers and parents of the impact reading-at-home and early intervention had on students.

Delimitations

This study was performed using third grade students from Eastern Washington. This study compared 24 third grade students who participated in the school-wide reading-at-home program and who took the Measurement of Academic Progress Reading Test. The class of 24 students was chosen randomly regardless of race, gender, and socioeconomic status. The study took place from the fall of 2005 to spring of 2006 in a small rural town with a population of 61,000 in Eastern Washington. The elementary school where the data was collected had approximately 600 students with demographics of 88.5% White, 4.2% Hispanic, 1.5% Black, 2.5% Asian, and 1.2% American Indian/Alaskan Native. There were 13.1% of students on the free and reduced lunch program which indicated a high population of middle to upper socioeconomic status students. Special Education was at 9.3%, Transitional Bilinguals at 0.8%, and Migrant Students at 0.0% completed the demographics of the elementary school (Office of Superintendent of Public Instruction, 2006).

Assumptions

This elementary school included a fairly represented sample size of third grade students attending elementary schools with similar demographics in small, rural towns in Eastern Washington. All elementary students at this participating school had equal opportunity, regardless of race, sex, or socioeconomic background, to participate in reading-at-home, intervention programs, if needed, and Measurement of Academic Progress testing. Finally, all the participants were properly placed in third grade according to students' educational needs and the same kind of classroom reading instruction was given to all the participants.

Research Question

Is a reading-at-home program or early intervention program a more effective way to increase student achievement in reading as measured by the Measurement of Academic Progress assessment?

Significance of the Project

The research study focused on which of two programs had the most impact on students' reading scores. The areas investigated were reading intervention and at-home reading minutes. The researcher wanted to know which group of students had the largest growth on the reading Measurement of Academic Progress assessment from fall to spring-- students that received intervention or students that met the standard at-home reading minutes for the year.

Procedure

The participants in this study were selected as a class at random from a list of third grade classrooms in the building. Students took a fall Measurement of Academic Progress reading assessment. Over nine months students recorded the minutes read at home on a calendar. The minutes were turned in to the teacher each month. Students that qualified for intervention programs attended sessions from fall to spring. Students took a spring Measurement of Academic Progress reading assessment. The students received a pre and post Rasch Unit score from this assessment. The results from the two tests were compared to see whether reading-at-home or reading intervention programs had more impact on test scores. The researcher took the students that met the standard 5400 minutes of at-home reading and found the average growth made on the Measurement of Academic Progress assessment from fall to spring. Second, the researcher took the

students who received reading interventions and found an average growth score made on the Measurement of Academic Progress. The third group was categorized as the other students. These students were ones that did not meet the standard for at-home reading and did not receive reading intervention.

Definition of Terms

equal-interval- Equal interval meant the RIT score for each student was divided equally. This allowed teachers to apply simple mathematical equations to scores to determine information such as the mean or median scores in a class or grade.

grade-independent- The students' scores did not have different meaning from grade to grade. The tests were adaptive and the test items displayed were based on student performance, not age or grade. Identical scores across grades meant the same thing.

intervention programs- Intervention programs were small groups or one-on-one time with a trained teacher who gave students extra instruction and practice in the areas which had been identified.

item banks- The test item banks were created by teachers who received thorough training in the item-writing process. Hundreds of items were added to these banks each year. The hundreds of test items written by trained teachers contributed to the reliability and validity of the Measurement of Academic Progress assessment.

RIT score- The RIT score was short for Rasch Unit. The rasch unit was named after the test theory's founder, Danish statistician Georg Rasch. The RIT score was a measurement similar to a meter stick. The RIT score was divided into equal parts similar to centimeters.

Definition of Acronyms

EALRs - Essential Academic Learning Requirements

GLE - Grade Level Expectations

MAP - Measures of Academic Progress

NCLB - No Child Left Behind Act

NWEA - Northwest Evaluation Association.

RIT - Rasch Unit

CHAPTER 2

Review of Selected Literature

Introduction

Research has shown that children who read well in the early grades became far more successful in later years in reading. Children who fell behind often stayed behind when academic achievement was being measured (Snow, Burns, & Griffin, 1998). Knowing this information, teachers were always looking for ways to help students become better readers. Two ways some elementary schools have helped students were through early intervention and reading-at-home programs. This study investigated whether early intervention or reading-at-home programs had more impact on students' achievement in reading as measured by the Measures of Academic Progress scores. The main areas covered in this literature review were reading-at-home, reading intervention programs, and the Measures of Academic Progress assessment.

Reading-At-Home

The reading-at-home program was adopted by the district and carried out in all classrooms. The goal was to have all students read at least twenty minutes a night. The reading could be the student reading out loud to a parent or a parent reading to a child. The material used for reading was up to the families to choose. Students were responsible for turning in reading minutes every week. Students then received a grade on the report card for the total minutes the student read at home.

Intervention Programs

The intervention program used in the study was from *Harcourt Trophies Intervention Kit*. The school used the *Harcourt Reading Series* as the main reading

curriculum in the classrooms. The reading specialist used the kit to work with students four days a week, thirty minutes a day. According to research, students with learning difficulties needed more review and practice to perform a new task automatically. Instruction should cumulatively integrate simpler or previously learned tasks with newer, more complex activities (Beck, Farr, & Strickland, 2003). The Intervention Resource Kit pre-taught and re-taught the same skills and concepts that were taught in the core program used in the classroom. The thirty minute intervention lessons were in addition to the ninety minutes a day of classroom instruction that all students received. The intervention sessions had a ratio of three students to one adult.

Measures of Academic Progress Assessment

The assessment used in the research project was called Measures of Academic Progress or MAP. The MAP assessment was created by the Northwest Education Association or NWEA. According to the NWEA (2006a):

> NWEA assessments use a measurement scale that has proven to be exceptionally stable and valid over time. The scale was based on the same modern test theory that informs the SAT, Graduate Record Exam, and Law School Admission Test. . . the scale we use is divided into equal parts, like centimeters on a ruler. We call these parts RITs, which is short for Rasch Unit. (p.1)

The NWEA has proven through years of research that the MAP assessment was valid and reliable.

> Reliability is essentially an index, or more precisely, a set of indices of a test's consistency. This consistency typically refers to performance of the test across time, across forms or across its items or parts.

> Reliability across time is often referred to as test-retest reliability or temporal stability. The question being answered with this type of reliability is, "To what extent does the test administered to the same students twice yield the same results from one administration to the next?" Answers to this question are stated in terms of a Pearson product-moment correlation coefficient (*r*). The minimum acceptable correlation is considered to be .80; 1.00 is a perfect correlation. (p. 2)

The other important question the teachers had answered was if the test was valid.

> Most of the documented validity evidence for NWEA tests comes in the form of *concurrent validity*. This form of validity is expressed in the form of a Pearson correlation coefficient. It answers the question, "How well do the scores from this test that reference this (RIT) scale in this subject area (e.g., Reading) correspond to the scores obtained from an established test that references some other scale in the same subject area?" (p. 4)

The MAP assessment proved to be valid. The validity score was r = .81. With this information teachers felt the form of assessment used was valid and reliable.

The NWEA added hundreds of new items to the test item banks. Test items were created by teachers that received thorough training in the item-writing process. After the items were written the items went through a rigorous, bias content review (NWEAa). The assessment was checked to make sure the assessment aligned with the state standards. The state standards were known as the Grade Level Expectations. According to the NWEA, "The MAP assessment is a state-aligned computerized assessment that provides accurate, useful information" (p.1). The state-aligned computerized assessment allowed teachers to use the results of the assessment to directly drive the curriculum used in

classrooms. The Grade Level Expectations were directly aligned with the MAP assessment. Teachers used the Grade Level Expectations to drive the curriculum. When teachers used the MAP that directly lined up with the Grade Level Expectations and the curriculum, teachers saw how students' learning was being impacted. Not only could teachers see in one year's time how students' learning was impacted, but teachers could see students' growth over several years. One of the main reasons teachers chose to use the MAP assessment was because of the MAP assessment's ability to track students from year to year.

According to the NWEA (2006b), "MAP test results provide educators with longitudinal data they can use to measure the impact their schools have on each child . . . because MAP tests are based on a grade-independent, stable scale, educators get an accurate indication of student growth" (p. 1).

Students' scores were obtained from fall and compared with the scores with the standard scale numbers to see if the students were on, below, or above grade level. Students' scores were compared from fall to spring with the confidence that scores were based on a grade-independent, stable scale. The MAP assessment was a tool schools could use to measure annual yearly progress of the students.

Summary

The main areas covered in this literature review were reading-at-home, reading intervention programs, and the MAP assessment. The reading-at-home program had students read at home 20 minutes a night. The intervention program was taught from the intervention kit used to support the classroom reading program. Both programs were in place to improve students' overall reading. The MAP assessment was the tool used to

assess the impact of the strategies on students' reading scores. The MAP assessment allowed the data to be looked at on a grade-independent, stable scale allowing for a nonbiased comparison of data.

Chapter 3

Methodology and Treatment of Data

Introduction

As a result of House Bill 1209 and the No Child Left Behind Act, the teachers in the Eastern Washington school staffing this study felt a need to focus on students' reading. Teachers believed it was important to have programs with scientific backing and research-based curriculum when planning instruction. The school had implemented two supplemental reading programs. The reading-at-home program required that students read 20 minutes a night at home. Minutes were submitted to teachers each month. The second program in the study was the reading intervention program. Students who were not at grade level attended a one-on-one intervention program that met for 30 minutes per day, four times a week.

Parents and students were clearly notified of the at-home-reading expectations. Intervention teachers were trained in the intervention program. Classroom teachers were trained in the proper use of the reading curriculum and the MAP assessment tool. All students were engaged in daily classroom reading instruction.

Methodology

The study was conducted in an elementary school in Eastern Washington. The method used was quantitative research. Quantitative research meant that methods were based on the collection and analysis of numerical data, obtained from a pre- and post-test (Gay, Mills, & Airasian, 1992). The growth that was shown was measured by the MAP assessment scores from fall to spring. The research analyzed the pre- and post-test scores of the 24 students in the sample classroom.

Participants

This study was performed using 24 third grade students from an elementary school in Eastern Washington. A majority of the students came from white, middle income families. More than half of the students had been in attendance at this school for more than two years. The teacher in this self-contained classroom had been instructing for more than twenty years and more than four years using this reading curriculum. The intervention specialist had been a reading teacher for more than 20 years as well. Both teachers had received training in using the curriculum mandated by the administration.

The sample of students contained ten males and fourteen females. The classroom teacher performed the pre- and post-test using the MAP assessment. All participants had an equal opportunity in the classroom to grow as readers.

Instruments

The device used to gather data was the MAP assessment. The MAP assessment gave an overall RIT score for each student in reading, as well as a breakdown of different components of reading. The reading components scored were word recognition, reading comprehension, knowledge of text components, thinking critically and analyzing, and reading different materials for a variety of purposes. The scale used to score the MAP assessment was based on the same test theory as the SAT, Graduate Record Exam, and Law School Admission Test (NWEA, 2006a). The scale was divided into equal parts similar to a ruler. The reliability and the validity were extremely high. The MAP assessment had a minimum correlation of .80 to be considered reliable. The MAP

assessment had been aligned with state standards. This allowed teachers to use the results of the assessment to directly drive curriculum and intervention.

The intervention program from *Harcourt Trophies Intervention Kit* supported the classroom instruction which used the *Harcourt Reading Series* as the main source of instruction. The intervention kit did exactly what research has discovered a good intervention kit should do. The kit pre-taught and re-taught the same skills and concepts that were covered in the core program in the classroom (Beck, Farr, & Strickland, 2003).

The reading-at-home program was flexible enough to meet all students' needs. Strong readers could read independently or out loud to someone. Struggling readers could be read to or shared the job of reading with an adult. Research was shared with parents to show that students' reading skills and brain development improved dramatically from birth to age nine by practicing the skill of reading.

Design

This experimental study used pre-test and post-test MAP scores. The fall MAP assessment was given in early October as the pre-test. The spring MAP assessment was given in mid-May as the post-test. Each test session gave students the same opportunity to perform. Each test was taken in the computer lab, with quiet, non-disruptive surroundings. Students were allowed as much time as they needed to complete the test.

Procedure

The instructors involved in the research were trained to effectively use the *Harcourt Reading Series*. The classroom teacher provided daily reading instruction to all students in the classroom. Students categorized as reading below grade level were pulled out from the classroom to receive 30 minutes a day, four times a week, of intervention instruction.

The intervention instruction used the *Harcourt Trophies Intervention Kit.* During intervention students were in small groups or received one-on-one instruction with a trained instructor. The purpose was to pre-teach and re-teach the concepts taught in the classroom. The intervention sessions started in late September, 2005.

The reading-at-home program expected students to read at home twenty minutes per night. Students could decide, with guidance from teachers and parents, how the reading would take place. Students could have read out loud, read independently or could have been read to by an adult. Students then turned in a reading calendar at the end of each month to show the minutes they read at home. Teachers kept a log of the total minutes students turned in from September through May.

The MAP assessment was given by the classroom teacher in the computer lab. The pr-test was given in early October and the post-test was given in mid-May. The teacher had been trained in the proctoring of the assessment. All students had the same amount of time and support on the pre- and post-test.

Treatment of the Data

The data analyzed was comprised of pre-test MAP scores and post-test MAP scores. The testing was done in early October and mid-May. The classroom instruction remained the same throughout the year. Students were required to read at home from September to May. Students received interventions from September to May as well. After fall to spring scores were collected students were grouped into three categories. The three categories were students who received reading intervention, students who met the reading-at-home standard minutes, and students who did not receive intervention or meet the reading-at-

home standard. The three categories of scores were entered into an excel spread sheet. The averages of each group was figured out showing what group made the most growth.

Summary

This study used quantitative research, which meant the study was based on the collection and analysis of numerical data. The tool used for collecting data was the MAP assessment. Students took a pre and post-test using the computerized assessment. Twenty-four students from a third grade classroom in an Eastern Washington elementary school were selected at random to participate. All students were exposed to the same daily classroom instruction given by a trained classroom teacher. The expectations of the reading-at-home program were clearly explained to all students and parents. Students not meeting grade level expectations in reading received reading intervention thirty minutes per day, four times a week. The collection of data was then analyzed using an excel spread sheet to group the students into three groups; students who received reading intervention, students who met the reading-at-home standard minutes and students who did not receive intervention or meet the reading-at-home standard. Then the average growth of each group was determined.

Chapter 4

Analysis of the Data

Introduction

This study compared two ways elementary schools have helped students to become better readers. The two programs used were early intervention and reading-at-home. This study investigated whether early intervention or reading-at-home programs had more impact on students' achievement in reading as measured by the students' MAP scores. Twenty-four third graders took part in the study. All 24 students in the study received the same classroom reading instruction. The at-home-reading program was clearly explained to all families as well as what was expected of them. The classroom teacher was trained to teach the reading curriculum for third grade. The teacher also received professional development training on the MAP assessment. The intervention teacher was given adequate training to instruct students using the intervention kit.

Description of the Environment

The elementary school where the data was collected had approximately 600 students with demographics of 88.5% White, 4.2% Hispanic, 1.5% Black, 2.5% Asian, and 1.2% American Indian/Alaskan Native. There were 13.1% of students on the free and reduced lunch program which indicated a high population of middle to upper socioeconomic status students. This study compared 24 third grade students who participated in the school wide reading-at-home program and who took the Measurement of Academic Progress Reading Test. The students that did not meet grade level expectations in reading participated in a reading intervention program 30 minutes per day, 4 times a week as well as the reading-at-home program. The class of 24 students was chosen randomly

regardless of race, gender or socioeconomic status. The study took place from the fall of 2005 to spring of 2006.

Research Question

Is a reading-at-home program or early intervention program a more effective way to increase student achievement in reading as measured by the Measurement of Academic Progress assessment?

Results of the Study

The results of the study were displayed in three tables. Each table represented the three groups of students who were the students of this study. Those groups were the students who met the at-home reading standard, the students who received intervention support, and the students who did not meet the at-home reading standard or receive intervention support.

The first group, displayed in Table 1-A, was made up of the students who met the at-home reading standard of 5400 minutes. Those students did not receive intervention support. Table 1-A showed that students' reading scores at home grew an average of 11.5 points on the MAP reading assessment from fall to spring.

Students who met 5400 at-home-reading minutes				
Student	**Fall**	**Spring**	**Growth**	**Above 5400**
One	195	217	22	210
Two	212	212	0	260
Three	203	215	12	971
Eleven	205	211	6	2520
Thirteen	209	217	8	552
Sixteen	196	204	8	4005
Seventeen	197	202	5	1205
Twenty	196	207	11	1240
Twenty-one	208	214	6	763
Twenty-Two	169	200	31	1334
Twenty-three	193	213	20	5090
Twenty-Five	201	210	9	1105
Average	**198.6667**	**210.1667**	**11.5**	

Table 1-A

The second group was made up of students who received intervention support. The results of these students' MAP scores are shown in Table 1-B. The students that received intervention support thirty minutes a day, four times a week, grew an average of 14.2 points on the MAP reading assessment from fall to spring.

Students in Interventions 30 minutes a day, 4 times a week				
Student	**Fall**	**Spring**	**Growth**	**Above 5400**
Seven	152	171	19	-1735
Ten	174	196	22	-139
Eleven	205	211	6	2520
Fifteen	187	202	15	-1375
Sixteen	196	204	8	4005
Eighteen	207	206	-1	-4800
Nineteen	188	197	9	-4970
Twenty-two	169	200	31	1334
Twenty-four	169	192	23	-130
Twenty-six	181	191	10	-3004
Average	**182.8**	**197**	**14.2**	

Table 1-B

The third group was made up of students that did not receive reading intervention support and did not meet the standard reading minutes at home. The students' scores and average growth are displayed in Table 1-C. The average growth for these students on the MAP reading assessment from fall to spring was 8.2 points.

Students who did not meet the at-home-reading standard and did not receive reading intervention				
Student	**Fall**	**Spring**	**Growth**	**min.**
Four	202	215	13	-910
Five	204	208	4	-3544
Eight	208	212	4	-5165
Twelve	210	211	1	-3180
Fourteen	195	214	19	-330
Average	**203.8**	**212**	**8.2**	

Table 1-C

Findings

The results indicated that each of the three groups made growth from fall to spring on the MAP assessment. However, students who received additional intervention support grew the most. Students who received intervention four times a week grew an average of 2.7 RIT points more than students who did not receive support but read at home. Students who received intervention support grew 6 RIT points more than those who did not receive reading intervention or meet the at-home-reading standard. Students who read at home, but did not receive reading intervention, grew 3.3 RIT points more than those who did not read at home or receive intervention support. The results showed that students who did not read at home and did not receive intervention support were more likely to show less growth on the reading MAP assessment from fall to spring.

Discussion

The teachers involved in the study believed that reading-at-home would have a greater impact on students' reading growth than the reading intervention did. According to researcher, Lynn Fielding, practice with reading improved students' reading skills and brain development dramatically from birth to age nine (Fielding, Kerr, & Rosier, 1998). One factor that could have affected the impact of reading-at-home was that third grade students were near the end of the birth to age nine spectrum. According to Fielding's research (1998), reading practice at home could have had less impact on students' performance. Another factor that could have affected the impact of reading-at-home on the MAP scores was the type or quality of at-home reading students were receiving. Some students could have spent time with a book looking at pictures and maybe reading a little, while other students could have been reading a level-appropriate book with an

adult giving them instruction. These two approaches to reading at home could have impacted the value of the reading-at-home.

Summary

This study compared two ways elementary schools have helped students to become better readers. The study took 24 third grade students from an Eastern Washington elementary and compared the students' MAP reading assessment scores from fall to spring. The students were broken up into three groups. The three groups were; students who met the at-home reading standard, students who received reading intervention, and students who did not read at home and did not receive reading intervention. The results were shared through three tables. Each table showed students' fall scores, spring scores, and the students' average growth. The tables also showed the average growth for the group. Students that received reading intervention grew the most. Students who did not read at home and did not receive reading intervention grew the least.

Chapter 5

Summary, Conclusion, and Recommendations

Introduction

With the need to have all students meeting state standards mandated by the No Child Left Behind Act of 2002, teachers had been focused on laying a strong foundation for each child. The researcher wanted to gather data to prove the impact of reading-at-home with students on the students' performance on the MAP assessment. Another tool used by schools to help students meet standards was reading intervention programs. The researcher compared the RIT scores of third grade students in an Eastern Washington elementary school. The purpose was to show possible positive growth by students who participated in reading-at-home and reading intervention programs.

Summary

The researcher investigated whether reading-at-home or reading intervention programs had more impact on third grade students' achievement in reading as measured by the Measurement of Academic Progress scores. The researcher investigated which group of students had the largest growth from fall to spring. Over nine months students recorded the minutes read at home on a calendar. The minutes were turned into the teacher each month. Students that qualified for intervention programs attended sessions from fall to spring. Sessions were thirty minutes a day, four days a week.

The researcher looked at the students in three separate groups. Students that met the standard 5400 minutes at-home reading, students who received reading intervention, and students that did not meet the at-home reading standard and did not receive reading intervention.

Conclusions

In conclusion, the reading intervention program had the greatest impact on students' RIT scores from fall to spring. The group of students that showed the least amount of growth was the group that did not read at home and did not receive intervention support at school. According to Table 1-A, students who met the at-home reading standard grew an average of 11.5 RIT points on the MAP from fall to spring. Students that received reading intervention grew 14.2 RIT points as shown on Table 1-B. The third group, with the least amount of growth, was displayed on Table 1-C. The group of students did not receive intervention or read at home and showed only 8.2 RIT points of growth.

Recommendations

If this project were to be replicated the researcher would recommend further research to see if, over a period of years, the data proved to be consistent. The future research would need to include more in-depth data about the quality of each student's at-home reading. The last recommendation the researcher would make would be to have a larger sample of students from which to collect data.

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