Flipped Reading Methodology

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Abstract

The purpose of this study was to empirically determine whether the Flipped Reading methodology significantly improves reading achievement. The measurement tool was two separate HSA benchmark exams. This study involved use of a quasi experimental pretest-posttest design to measure the data collected from those exams. The results of the study indicate that the researcher's null hypothesis that there was no statistically significant difference in the reading achievement of students using the Flipped Reading Methodology versus a more traditional approach should be accepted. Research in this area should continue as there is very little information available regarding various approaches to reading comprehension and the various factors that can affect reading comprehension.

CHAPTER I

INTRODUCTION

Reading comprehension is essential to all learning. As the national discussion on education continues to focus on raising student standards, reading comprehension has come to the forefront of most conversations. Simply put, the better students read, the better they learn. English teachers can attest to the fact that their content is the one that can most directly affect other content areas. Teachers in history or math may focus on specific vocabulary but they will usually not focus on general comprehension with students. At the federal level, the current administration has gone a long way toward raising the reading achievement standards for students. In the state of Maryland, sweeping changes are on their way. In Baltimore County, English curriculum is being rewritten to increase rigor and higher order thinking. Some teachers argue that these new curricula content and methodology are at a level far above what was expected of students under No Child Left Behind.

One new methodology that was of interest to this researcher is called the Flipped Reading method. Harlaar, Deater-Deckard, Thompson, DeThorne, & Petrill suggest that students will comprehend more if they are given the time to read at home and do further comprehension work in the classroom. (2011) This compares with a more traditional method of teaching literature which dictates that reading is done in the class, and teachers help with comprehension during the reading. The risk involved with the Flipped Reading methodology is that left to their own devices, students may not read at home or may not understand their reading. Reading at home may hinder the student's ability to ask questions for comprehension.

Statement of Problem

Problem Statement- What is the effect of the flipped reading model on student achievement?

The purpose of this study was to judge the effect of the flipped reading model of teaching on student success when compared to the traditional method. Reading comprehension is a skill that affects learning in all content areas, and therefore must be fostered in the most effective manner across disciplines. This study compared the flipped reading model to the traditional reading model taking place in schools all over the country. In using different strategies in order to teach the same content, the purpose of this study was to determine whether the traditional or the "Flipped method" resulted in a statistically significant improvement in student achievement.

Null Hypothesis

The null hypothesis for this study was that there is no statistically significant difference in the reading comprehension of students using the Flipped reading model versus the more traditional approach. The underlying assumption in using the Flipped reading methodology was that it would give students time to think over questions from the text and discuss those questions with their teachers, which would reduce unanswered questions from students who are not willing to ask questions during in class reading. In doing so, students will have a greater understanding of the text and work more effectively.

Operational Definitions

Student achievement in this study will be defined as the grades on the county- mandated short cycle and benchmark exams. Tenth grade students in Baltimore County Public Schools are

required to take these tests in order to track their academic trajectory before the High School Assessment (HSA).

Subjects will be defined as the students in 10th grade AVID class at one of the comprehensive high schools in Baltimore County.

CHAPTER II

REVIEW OF THE LITERATURE

The following literature review discusses the importance of reading comprehension in the modern classroom and various reading strategies aiming to improve that comprehension. The first section discusses the importance of this topic and why it is relevant today. The second section explains what good reading comprehension actually looks like. The final section gives various examples of reading strategies that have been implemented in order to improve student achievement in various environments. These interventions all took different approaches to increasing reading comprehension with varying success.

The Importance and Relevance of Reading Strategies In and Outside of the Classroom

All students' achievement comes back to their reading comprehension. Students need to understand the questions they are asked in order to show understanding. This truth is obvious in all content areas. In this day and age, with technology being more and more integrated in everyday life, reading is quite possibly the most important skill a student can master in order to achieve success in life. In fact, to merely survive, reading is essential. This is relevant because we currently face a reading crisis in this country. Brausseur-Hock, Hock, Keifer, Biancarosa, and Deshler (2011) say that, "in some of the largest urban school districts, nearly 65% of all adolescents read below the 'satisfactory' level on state reading assessments. This leads to the fact that "the educational and life outcomes for urban students are lower than other students in all achievement areas" (p438) In order to fix this problem one must determine what sort of reading strategies work best with which students. The first step in this process is to ascertain the effectiveness of certain reading strategies on the general population of students.

Luke, Dooley and Woods (2011) state, "comprehension achievement is a strong predictor of overall academic achievement, especially in the middle years, and its measurement is increasingly focal in accountability-based educational policy" (p.155). As schools continue to move towards using standardized testing as the paramount assessment of achievement, one must keep in mind the role that reading comprehension plays. A student with good reading comprehension achieves in all content areas.

Luke et al. (2011) also state that "The question is: what is made to count as comprehension in these schools – and what versions of comprehension appear to have significant longitudinal effects on students outcomes, pathways and educational futures" (p153.). Student outcomes determine a wide range of possibilities for students including their future and the state of certain school districts. Students must eventually enter the workforce where reading comprehension will be the expectation. It is important and imperative to keep focus on the longitudinal line mentioned. The level of reading comprehension students achieve will have a direct effect on the eventual success or failure of the students' adult lives.

Excellent versus Poor Reading Comprehension

An important topic in this discussion is the level at which students are fluent in their reading. Fluency is defined by Paige, Rasinski and Magouri-Lavell (2012), as "the ability to recognize words in text so effortlessly that a reader can devote limited attentional [sic] resources to the more important task of making meaning from the text" (p.71). A student's fluency is often the gauge by which teachers initially judge reading comprehension. They are able to do this by taking notice of the second factor of fluency. Prosody, which is "the ability to modulate one's voice to the meaning of their speech" (p73.). The failing of gauging fluency is that it does not go

deep enough in assessing reading comprehension. Targeted skills must be applied in order to best determine and enhance reading comprehension.

What does this look like? This looks like a student who can read and do more than understand the text. Fluency is when a student actually expresses and mimics emotion while reading. This shows that that the student has not only a mastery of comprehension but also a mastery of vocabulary, tone, mood and nuance. Higher level reading dictates that one not only must read and understand the words on the page but must also understand the subtext of what is written; fluency in the earliest and easiest way to determine this.

This fluency is related to the motivation of the reader. Bellinger and DiPerna (2011) state that "comprehension facilitates one's enjoyment of reading, as children that do not understand what they read will be less motivated to continue reading" (p. 417). If fluency represents the model of a good reading, one can ascertain that the reader can enjoy the content more and therefore be motivated to continue reading. A non-fluent reader goes against this model and is therefore missing out on practice. The more a student understands, the more that student will enjoy; the more that student enjoys, the more that student will practice, and therefore the more that student will comprehend. This cycle of fluency to achievement shows us exactly what a good reader looks like.

Various Reading Strategies

Writing for reading is a strategy based on the idea that Graham and Herbert (2011) say that "Writing about materials read improves student's comprehension of it; that teaching how to write improves reading comprehension, reading fluency and word reading." (p. 710) This strategy posits that more students write, the more they understand reading. This concept is

referred to as meta- analysis. Four types of writing proved the most effective for improving reading comprehension: extended writing, summary writing, note taking and answering questions. Graham and Herbert , believe that, "While writing and reading are not identical skills, teaching writing has a positive carryover effect to improve reading." (p.710) This 'carryover effect' is the basis of this entire strategy.

Stircklin (2011) states that with reciprocal teaching, students "predict before reading and then check their predictions during the reading. They stop to clarify unknown words or ideas during reading. They ask 'teacher questions' during and after reading to check for understanding. And they summarize either a pager or the entire text selection after reading." (p.621)   This is a strategy geared towards preparation for standardized testing. This strategy also has shown success when implemented in classrooms for students with disabilities, and has many methods for implementation. The addition of hands-on tools, such as paper plat dials or sentence starters, is quite often utilized when this strategy is implemented, making the strategy more accessible to the students and increasing student achievement.

Silent reading is another strategy one may use in order to increase student achievement. Heibert, Samuels and Rasinski (2012) state that, "Proficient silent reading is the means whereby individuals access the ever increasing stores of knowledge within texts that are required for the workplace and community. It is a reading habit that involves strong comprehension and optimal reading rates." (p.111) Some believe that this intervention lacks structure and therefore cannot be useful to the average student; however, the study cited shows that students who partook in silent reading gain scores that were "substantially larger than the mean overall gains of the district and state" (p. 110) This reading strategy is incredibly important to the study because it focuses on the specific skill that will be evaluated.

Vocabulary development assumes that if a student focuses of vocabulary then reading comprehension becomes a much more attainable goal. The study, taking place in Pakistan, assumes that English reading comprehension in Pakistani children will increase along with vocabulary. Butt (2011) writes that, "The goal is to identify, prior to reading, key words that students are likely to have challenges decoding an teaching them so that students can read these words and use them in discussions and written expression"(p.968). At first, one could assume that this is an obvious point. However, after tracking student success the researchers learned that doing this allows students to make meaning of their reading and to provide students a base with which to grow context clue skills. After earning how certain words are used students will then learn how to decipher the meaning of new words using the words around them. The conclusions of the study found that students learned contextual skills quickly and utilized them immediately. This study can be useful in that context skills acquirement is a good measure of reading comprehension.

While discussing vocabulary one should also keep in mind the effect that graphic novels can have on student achievement via vocabulary development. By adding visual representations on the text as a supplement, new vocabulary becomes less abstract. As Gavigan (2012) puts it "reading comics/ graphic novels increases vocabulary and comprehension by helping readers decode words and events though use of visual sequences" (p. 20). Graphic novels have also been shown to improve student motivation, which increases interest, which increases comprehension. It is important to note that some may see this as a low functioning skill due to the use of pictures and the similarities to that method and those used n the elementary level. However, the skills used have been shown to work in all grade levels and have been implemented at many levels of rigor.

Summary/Conclusion

The review of the literature available stresses the importance of reading comprehension at all levels. Especially is our urban schools, the system is currently failing the students by not properly addressing their need for targeted reading instruction. Halaar, Deater-Deckard, Thompson and Petrill (2011) state that "Outside of school, good readers in fifth grade may read as many words in 2 days as a poor reader does in an entire year." (p. 2137). The review of literature also provides many detailed examples of attempts at fixing this very problem. The rhetoric of schools often includes ideals such as 'college and career ready' or 'no child left behind'. If such ideals are going to be met, then reading comprehension will have to take center stage in the theater of education. Reading comprehension is not a school issue. It is a quality of life issue. Students with low reading comprehension will not be able to understand the nuances that surround them in everyday adult life and to not consider that for every single student would be doing a great disservice to them.

CHAPTER III

METHODS

Design

The primary purpose of the study was to determine the effect of the Flipped Reading Methodology on achievement via individual determination (AVID) gifted and talented students enrolled at a high school in central Maryland. For the purpose of this study, student achievement was defined as the difference in scores on Grade 10 benchmark exams before and after the methodology was implemented. The study used a quasi- experimental pretest-posttest design with the gifted and talented (GT) students receiving flipped reading instruction serving as the experimental group, while a classroom of Honors students served as the control group. The method of instruction (i.e. Flipped Reading Methodology) served as the independent variable, and students' pretest vs. posttest performance on the benchmark exams served as the dependent variable.

Participants

Participants consisted of 35 tenth grade students at a high school in central Maryland. These students were part of the Achievement via Individual Determination (AVID) program. These students were handpicked as individuals with specific college and career goals. The GT and the Honors class received the same instruction, but were separated into two groups. The schedule worked on an A/B-Day schedule so the students received instruction every other day. The sample included 18 GT students and 17 Honors students. Eleven of those students were male and 24 were female. Twenty seven of the students were Caucasian, 6 students were African American, and 2 students were Asian American. According to mdreportcard.org, the school is

made up of 1442 students. One thousand and fifty nine of them are Caucasian, 264 African American, 56 Latino, 22 American Indian, 18 Asian and 22 students who identify as two or more races. Six hundred and nineteen students are male and 824 students are female. Seven hundred and twenty four students receive free and reduced meals. One hundred and thirty nine students receive special education services.

Instrument

The Flipped Reading methodology suggests that time in English/ Language arts classrooms better serves students if it is spent discussing the text rather than reading the text. The debate is that when the text is read in class, the teacher is on hand to discuss and assess comprehension. The Flipped Reading methodology allows students to dive deeper into a text if they come to class with that comprehension already. Teachers then have the time to plan more extensive and rigorous lessons. These tests serve as an ideal measurement of student achievement because of the way in which they are structured. An HSA Benchmark consists of readings that range from one page to three. Afterwards, five to ten questions are asked, testing the comprehension of the student. The student has the option of looking through the text in order to search for the answer. The exams often combine skills taught in English classes, such as tone or author's purpose, with the questions in order to assess comprehension. Those skills are assessed, in equal part, in each exam.

Procedure

Both sets of students were given a pretest in the form of the first county-mandated benchmark exam. Afterwards the GT students received the instruction, but they were expected

to do all reading outside of class. Reading then became homework, with morning quizzes or discussion to check comprehension. This methodology is in line with the Flipped reading method. The Honors class received the same instruction that they always received, making them the control group. This consisted of guided reading in class. Most of the time students took part in what was called "pop reading", which meant students read a paragraph out loud and then chose another student to read the next. This method is useful because it allowed the teacher the opportunity to check in for comprehension as the students were reading. After a period of 10 weeks, another Benchmark exam was given and the students' pretest vs. posttest performance was assessed. Both classes took place first period, from 7:45 until 9:05 a.m. every other day, not including weekends.

Chapter IV

Results

The primary purpose of this study was to determine the effect of the Flipped Reading Methodology on the language arts achievement of AVID GT students enrolled at a local high school in the Central Maryland area. For the purpose of this study, student achievement was defined as the difference in students' language arts scores on the Grade 10 benchmark exams before and after the methodology was implemented. This study used a quasi-experimental pretest-posttest design with a classroom of GT students who received Flipped Reading Instruction serving as the experimental group and a classroom of Honors students serving as the control group. The method of instruction (i.e. Flipped Reading Methodology) served as the independent variable and the difference in students' performance on the Baltimore County Language Arts Benchmark exams served as the dependent variable. This pretest versus posttest difference score will henceforth be referred to as each group's "difference score". By using the *difference in students' performance* as the primary tool for determining the impact of Flipped Reading Methodology upon students' language arts achievement, this approach minimizes the initial difference in Honor students' vs. GT students' Benchmark 1 performances (i.e. 10.1 percentage points as reported in Table I.

Table I also contains descriptive statistics which describe the average pretest vs. posttest performance (or benchmark 1 vs. benchmark 2 scores) of each student group. This includes the mean language arts pretest vs. posttest scores of students in both the Honors and the GT classes that participated in this study, along with the standard deviations for each group. Figure A provides a graphic display of students' mean performance on the BCPS language arts benchmark
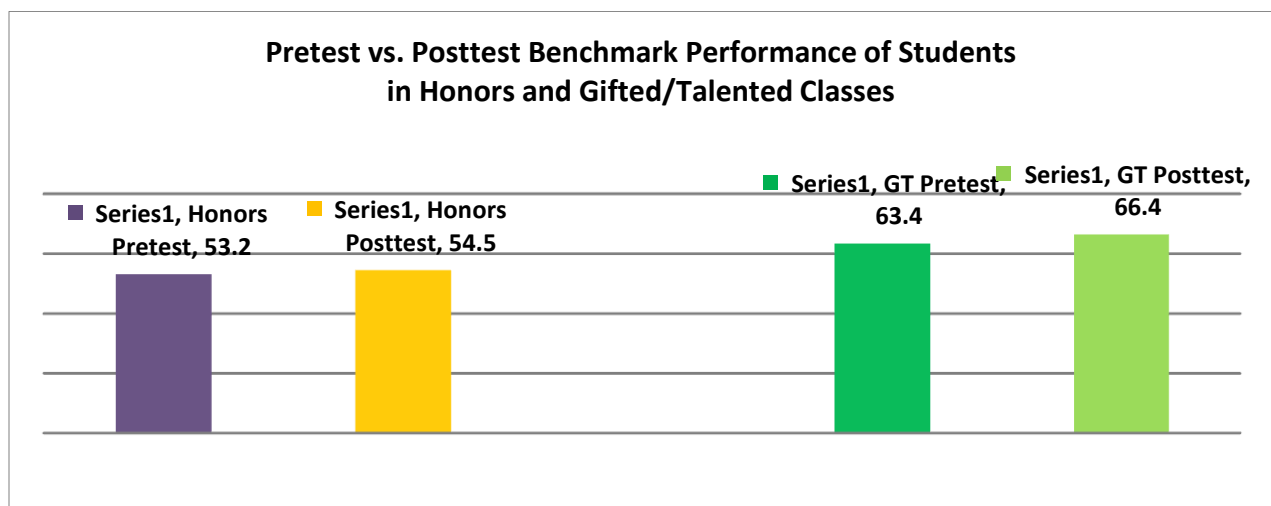
13

assessments. It is important to note that only students who had both a pretest and a posttest score were included in the results below.

Table I

A Comparison of the Pretest vs. Posttest Performance on Countywide Language Arts Benchmark Assessments Among Students in Honors vs. GT Classes

	Honors Students			Gifted/Talented Students		
	Benchmark 1	Benchmark 2	Difference	Benchmark 1	Benchmark 2	Difference
Mean	53.2%	54.5%	1.3%	64.2%	66.4%	2.2%
Standard Deviation	12.7	14.5	N/A	10.4	12.9	N/A

Figure A

Pretest vs. Posttest Benchmark Performance of Students in Honors and Gifted/Talented Classes

Series1, Honors Pretest, 53.2 Series1, Honors Posttest, 54.5 Series1, GT Pretest, 63.4 Series1, GT Posttest, 66.4

The results reports in Table I and in Figure A do suggest initially that the pretest vs. posttest differences among students in both classes were minimal. As reported in Table I, there was a pretest vs. posttest difference score of 1.27% for Honors students and 2.2% for students in the GT class.

Table I also suggests that the distribution of students' performance within both groups was quite broad, given the size of the standard deviations within each group.

While the descriptive data reported suggests that the pretest vs. posttest differences between each group were minimal (thus suggesting that the null hypothesis of no difference as reported in Chapter I should be accepted), a t test for dependent groups procedure was used to empirically determine whether the results obtained were statistically significant. The results of procedure, which compared the Mean Difference Score for students in the Honors class (1.3%) with the Mean Difference Score of students in the GT Class (2.2%) suggests that it is unlikely that the slight differences in performance between the two groups were not statistically significant (i.e. $t = 0.443$, df $= 14$, $p > .05$).

Thus, the null hypothesis that there was no statistically significant difference in the reading achievement of students using the Flipped Reading Methodology versus more traditional approach was accepted.

CHAPTER V

DISCUSSION

The purpose of this study was to empirically determine whether this methodology significantly improves reading achievement. The results of the study indicate that the researcher's null hypothesis that there was no statistically significant difference in the reading achievement of students using the Flipped Reading Methodology versus more traditional approach should be accepted.

Implications of Research

The results of the study indicate that the Flipped Reading methodology has no statistically significant effect upon reading comprehension as it relates to student achievement. This would suggest that reading comprehension is not influenced by the Flipped Reading methodology a teacher implements in order to read a text. It is important to note that this study only focused on one aspect of reading comprehension and that is the implementation of a strategy. One cannot surmise from this work the nonacademic factors such as after school employment, access to the internet and family stability that may also play a role in reading comprehension. Further research involving root cause analysis would be required to determine the degree to which these other factors affect reading comprehension and how strategies should be best implemented.

Threats to Validity

There are some internal and external threats to the validity of the study. One possible threat to the internal validity of this study was that the sample size was quite small when compared to the school, and to what would constitute a good research design. Also, over the course of the study two students were removed from the sample due to unforeseen circumstances. This unfortunate event may have skewed the results of the study.

Additionally, the study took place over the span of one quarter which is a relatively short amount of time compared to the school year. In order to properly judge the efficacy of the flipped reading method one would ideally conduct a study that lasted an entire school year and used the High School Assessment as the measure of student achievement.

One possible threat to the external validity of this study was the demographics of the sample which did not reflect the demographic of the school, nor the school district. The population of the school is roughly 1400 students while the sample chosen for the study was merely 37 students. The sample included 18 GT students and 17 Honors students. Eleven of those students were male and 24 were female. Twenty seven of the students were Caucasian, 6 students were African American, and 2 students were Asian American. According to mdreportcard.org , the school is made up of 1442 students. One thousand and fifty nine of them are Caucasian, 264 African American, 56 Latino, 22 American Indian, 18 Asian and 22 students who identify as two or more races. Six hundred and nineteen students are male and 824 students are female. Seven hundred and twenty four students receive free and reduced meals. One hundred and thirty nine students received special education services.

Another possible threat to the external validity of this study was the make-up of the sample itself. For example, one must take into account that the sample was made of students in

the AVID program. The AVID program is made up of students who not only have shown acceptable academic ability but have also proven themselves to be "self-starters" in that they are intrinsically motivated for success. This trait may not be indicative of the entire student population. If the study had taken place using the general population, for whom the completion of homework has been an issue, one could assume that the flipped reading methodology would have garnered negative results.

Implications to Further Research

This study only examined the implementation of one reading methodology and its effect on student achievement. Also, a small sample of convenience was used as opposed to a sample that was more representative of the school population. As the study found no connection between the reading methodology and student achievement one can assume further study of various reading strategies may be useful. Another study questioning what factors affect reading comprehension would also be useful in determining how to best implement a reading strategy.

Connection to Previous Studies/Existing Literature

Brasseur-Hock, Hock, Keiffer, Biancarosa and Deschler. (2011) state that "in some of the largest urban school districts, nearly 65% of all adolescents read below the "satisfactory" level on state reading assessments. This led to the fact that "the educational and life outcomes for urban students are lower than other students in all achievement areas." (p. 439) This speaks to the notion that more than methodology and implementation play into reading comprehension and student achievement. As stated in chapter 2, one must find what strategies work for specific

students. The fact that the Flipped Reading methodology did not show significant gains in reading achievement opens up the conversation to other instructional methodologies.

Specifically one should consider silent reading and the effect it may have on reading comprehension. Heibert et al. (2012) writes that "proficient silent reading is the means whereby individuals access the ever increasing stores of knowledge within texts that are required for the workplace and community. It is a reading habit that involves strong comprehension and optimal reading rates" (p.111). Considering that the Flipped Reading method takes place at home one can assume that the reading taking place is silent. Heibert's assertion that silent reading aids in comprehension is not supported by this study.

Conclusion/ Summary

In conclusion, the results of this study do support this researcher's null hypothesis that there is no statistically significant difference in the reading comprehension of students using the Flipped reading model versus the more traditional approach. However, it did raise questions regarding further studies that would need to be conducted in order to address the other instructional and non-instructional aspects of reading comprehension. These questions include but are not limited to: What other factors affect reading comprehension and student achievement? What role do classroom demographics play in reading comprehension and in what ways can a reading methodology best be implemented?

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