Implementing Team Teaching
In a Title 1 Program

Ellen A. Rupp

Submitted to the Master of Arts in Education Program
Of defiance College
In partial fulfillment of
The requirements for the degree of
Masters of Arts in Education

May, 2005

Dr. Jo Ann Burkhardt, Advisor
Dr. Suzanne McFarland, Coordinator
Master of Arts in Education Program
Chair, Division of Education
Abstract

Six students enrolled in a rural northwest Ohio school participated in the study. All participants in the study were sixth grade students. The target population of this study consisted of students enrolled in the Title 1 Program. Five of these students were females and one was male. The students were instructed as a group and intervention took place in the general education classroom in a K-6 building. The participants were selected by qualifying for the Title 1 Program. The study was conducted during a six-month time period. The purpose of this study was to determine if the implementation of a team teaching strategy resulted in higher achievement in reading with students enrolled in a Title 1 Program. The Rotation Model of team teaching was used in the study. Student achievement was measured using the Gates-Maginitie Reading Test. The initial administration of the test was conducted in October 2004. The final administration of the test was conducted in March 2005. All students involved in the study demonstrated increased achievement in comprehension. Three of six students scores increased in grade equivalency and vocabulary. Gains in comprehension of one year or more were evidenced in two students.
Acknowledgements

I am indebted to those who lent their support, guidance, and expertise toward the successful completion of this project. Sincere appreciation is extended to my advisor, Dr. Jo Ann Burkhardt. Her encouragement and assistance in all phases of the project were invaluable. I would also like my family for their support and encouragement.
Table of Contents

CHAPTER I: Introduction  
  Statement of Purpose 1  
  Justification 2  
  Definition of Terms 2  
  Limitations and Appropriate Use of Results 3

CHAPTER II: Review of Related Literature 4

CHAPTER III: Methods and Procedures 12  
  Participants 12  
  Treatment/Intervention 12  
  Instruments/Protocols 13  
  Procedures 14  
  Timeline 17  
  Data Analysis 17

CHAPTER IV: Results 20

CHAPTER V: Discussion 33  
  Meaning of Findings 33  
  Summary 36  
  Recommendations 37  
  Conclusion 39

References 40
Appendix A: The Riverside Publishing Test Disclosure Policy 33
Appendix B: Gates-MacGinitie Score Comparison Table 36
# LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 1:</td>
<td>Raw Score Vocabulary Pre-Test and Post-Test Scores</td>
<td>21</td>
</tr>
<tr>
<td>Figure 2:</td>
<td>Raw Score Comprehension Pre-Test and Post-Test Scores</td>
<td>22</td>
</tr>
<tr>
<td>Figure 3:</td>
<td>Total Raw Score Vocabulary and Comprehension Pre-Test and Post-Test Scores</td>
<td>22</td>
</tr>
<tr>
<td>Figure 4:</td>
<td>Aggregate Raw Scores</td>
<td>23</td>
</tr>
<tr>
<td>Figure 5:</td>
<td>Percentile Rank Vocabulary Pre-Test and Post-Test</td>
<td>24</td>
</tr>
<tr>
<td>Figure 6:</td>
<td>Percentile Rank Comprehension Pre-Test and Post-Test</td>
<td>25</td>
</tr>
<tr>
<td>Figure 7:</td>
<td>Total Percentile Rank Score Pre-Test and Post-Test</td>
<td>26</td>
</tr>
<tr>
<td>Figure 8:</td>
<td>Aggregate Percentile Rank</td>
<td>27</td>
</tr>
<tr>
<td>Figure 9:</td>
<td>Vocabulary Grade Equivalent Pre-Test and Post-Test Scores</td>
<td>28</td>
</tr>
<tr>
<td>Figure 10:</td>
<td>Comprehension Grade Equivalent Pre-Test and Post-Test Scores</td>
<td>29</td>
</tr>
<tr>
<td>Figure 11:</td>
<td>Total Grade Equivalent Pre-Test and Post-Test Scores</td>
<td>30</td>
</tr>
<tr>
<td>Figure 12:</td>
<td>Aggregate Grade Equivalent</td>
<td>31</td>
</tr>
</tbody>
</table>
Chapter I: Introduction

The role of the Title 1 teacher traditionally has been one of teaching students with reading difficulties apart from the regular classroom in a pullout program. Little attention has been given to the instruction that was provided by the classroom teacher. There often was no thought given to collaboration between Title 1 teachers and regular classroom teachers in correlating reading instruction. In addition, under the current implementation of Title 1 services, student success has been very limited based upon past results of the Gates MacGinitie Reading Achievement Test. The researcher reflected on the results of Title 1 performance nationally and pondered the appropriateness of the traditional structure of supplemental reading instruction.

As a graduate of Defiance College with a 1-8 license and a K-12 Reading Endorsement, this researcher taught third and fourth grade at a rural elementary school for nine years. When assigned the position of Tile I reading teacher, research was conducted on the most effective means to incorporate Title I services into the classroom. Pullout programs were traditionally used in the researcher's elementary school. In conjunction with the building principal, it was decided that a team teaching approach would be used in an effort to increase student achievement in reading.

Statement of Purpose

The purpose of this project was to determine if the implementation of a team teaching strategy resulted in higher achievement in reading with students enrolled in a Title 1 Program. The research questions were: (1) How was team teaching defined in the literature? (2) What models were used to implement the team teaching strategy?
(3) What were the benefits of team teaching? (4) Did student achievement increase in a Title 1 Program when a team teaching approach was utilized?

Justification

The researcher was interested in determining effective methods of teaching at-risk children. This project was implemented to see if Team Teaching instead of a pullout program improved student achievement. It is this researcher’s position that students should be able to participate in their regular classroom environment and receive the needed intervention to become successful readers. Students enrolled in Title 1 in this researcher’s school district participated in a pullout program. Supplementary instruction was given outside of the regular classroom often without knowledge of what skills or concepts were being taught by the primary instructor. However, this model of intervention did not deliver the anticipated significant improvement in academic learning of at-risk students (Dole, 2004). Although the law required regular classroom teachers and Title 1 teachers to coordinate lesson plans to facilitate consistency of teaching methods and strategies, this was often neglected to the student’s detriment. The Team Teaching model could be insightful for other Title 1 educators who seek alternative instructional methods for increased student achievement.

Definition of Terms

**Team teaching** – “A restructuring of teaching procedures in which two or more educators possessing distinct sets of skills work in a co-active and coordinated fashion to jointly teach academically and behaviorally heterogeneous groups of students in educationally integrated settings, that is, in the general classroom.” (Welch, Brownell, & Sheridan, 1999)
**Title 1 Reading Program** – A federally funded program providing supplementary intervention for struggling readers.

**Pullout Program** - Programs in which the specialist provides individualized instruction to students outside the classroom (International Reading Association, 2000).

**Limitations and Appropriate Use of Results**

A number of factors limited this project. One limitation was that the project was implemented in a small mid western community with a poverty level of 49%. Another limitation would be that seven students in one sixth-grade class participated. Consequently, the results of this study cannot be generalized to other settings, grades, or student populations.
Chapter II: Review of the Literature

The purpose of this project was to determine if the implementation of a team teaching strategy resulted in higher achievement in reading with students enrolled in a Title 1 Program.

The research questions were: (1) How was team teaching defined in the literature? (2) What models were used to implement the team teaching strategy? (3) What were the benefits of team teaching? (4) Did student achievement increase in a Title 1 Program when a team teaching approach was utilized?

Research Question #1: How was team teaching defined in the literature?

To answer question #1 a review of the literature was conducted. Beggs (1964) defined team teaching as an arrangement where two or more teachers, cooperatively planned, instructed, and evaluated one or more class groups in an appropriate instructional space in a given length of time. The talents of each teacher were utilized.

In addition, Bair and Woodward (1964) proposed that team teaching was an effort to improve instruction by the reorganization of personnel in teaching. They believed that two teachers were given responsibility to work together to provide instruction for the same group of students.

Warwick (1971) suggested that team teaching was an organization in which individual teachers decided to pool resources. Their interests and expertise were combined to implement instructional practices suitable to the needs of their students.

Also in agreement, Welch, Brownell, and Sheridan (1999) determined that team teaching restructured teaching procedures. Furthermore they stated that two or more
educators who possessed distinct skills worked collaboratively, coordinated strategies, and combined heterogeneous groups of students in an educationally integrated setting.

Through the review of literature, it was apparent that team teaching was an arrangement that included two or more teachers who collaborated and planned the coursework for a specific group of students (Davis, 1995). Having reviewed the literature pertaining to the definition of team teaching, it was deemed appropriate to review models based on these definitions.

Research Question #2: What models were used to implement the team teaching strategy?

Cook & Friend (1995) presented five models of team teaching that gave educators options to further meet the needs of their students. These models included: (a) Lead and Support; (b) Rotation; (c) Simultaneous Instruction; (d) Tiered Instruction and (e) Co-Teaching.

1. The Lead and Support model clearly defined one educator’s role as the primary instructor, while the other educator’s role was that of support in that instruction.

2. In the Rotation Teaching model the educators shared responsibility for teaching the same material to specific groups of students at specified times.

3. The Simultaneous Instruction model was defined as both teachers jointly plan the instruction, but divide the class into two heterogeneous halves, each taking responsibility for half of the class.

4. The Tiered Instruction model was described as organizing a classroom into
one small group and one large group, responsibility for pre-teaching or guided
practice would be determined by both teachers.

5. The Co-Teaching model was characterized by both educators sharing the
planning, instruction, and assessment of the students.

Cook and Friend (1996) determined that the Co-Teaching model required the most
planning, trust, and communication between teachers.

Furthermore, Vaughn (1997) noted that the traditional model of team teaching
involved the general education teacher and the special education teacher. This team
teaching format allowed for a range of team teaching options that could be implemented
to support students with special needs.

A review of the literature illustrated that there were several models of team
teaching. Cook & Friend (1995) listed five, (a) Lead and Support; (b) Rotation; (c)
Simultaneous Instruction; (d) Tiered Instruction; and (e) Co-Teaching. Likewise,
Vaughn (1997) described the traditional model of team teaching. Subsequently, two
teachers were responsible for the instruction of the same group of students. Having
read the literature on the models of team teaching, this researcher recognized that
inquiry into how students and educators benefited from the effective use of team
teaching models was required.

Research Question #3: What were the benefits of team teaching?

The review of literature clearly suggested that team teaching was beneficial to
educators and students.
Dole (2004) established that Title 1 teachers, often reading specialists, worked with struggling readers in what became known as a pullout program. Struggling readers would be pulled out of their regular classroom to receive compensatory small-group instruction implemented by the Title 1 teacher. She stated that this model of intervention and the billions of dollars that went into it did not deliver the anticipated significant improvement in academic learning of at-risk students. Conversely, she suggested that team teaching would benefit teachers and academically challenged students far more than the traditional pullout program. Bittner (1995) agreed and stated that pull out programs isolated students from their primary learning environment.

Bair and Woodward (1964) indicated that the direct benefits of team teaching for teachers centered on the diagnostic, planning, and evaluative procedures employed in the teaching-learning process. They also indicated that when teachers exposed themselves to their colleagues and engaged in constructive criticism they were able to improve their instructional program through the adoption and adaptation of the best ideas of the various team members. Likewise, Lobb (1964) reported that considerable progress was made in the effective utilization of professional time by teachers in team teaching situations. The use of material and personnel resources was streamlined and the development of appropriate teaching procedures was openly discussed and modified through a collective effort. He concluded that promotion of good attitudes and morale in teachers was experienced as professionalism and success mounted.

Additionally, Warwick (1971) summarized some of the benefits of team teaching. He determined there was a cost-cutting measure of materials and equipment as
teachers pooled resources. He added that there was a more efficient use of labor with duplication of effort reduced. Likewise, he affirmed that tailored lessons and approaches to fit the needs of the students were a benefit as team teachers combined individual strengths. Finally, he determined that the classroom teacher was involved actively and directly with the evolution of a meaningful curriculum.

Carter (2000) noted, when observing team teaching situations, that there was a common respect and trust among professionals who had traditionally controlled what happened in their classrooms and ignored what had happened in other classrooms. He was convinced that when team members worked together as a unit instruction was unified rather than fragmented. In addition, he determined that teachers realized that integration of curriculum and developmentally appropriate educational experiences at all academic levels could not be achieved effectively within an isolated segregated teaching model. He concluded that team teaching provided educators with the resources to provide individualized instruction that benefited all students.

Dettmer, Dyck, & Thurston (1999) observed that other positive aspects of team teaching included limited collaborative planning time. They also indicated that the additional support experienced in the classroom allowed for opportunities in increased partnership in instructional methods, strategies, and practices. Finally, Murata (2002) found that teachers felt energized by team teaching and believed that it benefited them both personally and professionally. He found in teaming a singular source of professional development and the support of a nurturing community.
Bair and Woodward (1964) observed that students manifested a greater desire to learn, and that they took their study and work time more seriously. Furthermore, they found that the student’s instruction was individualized and their learning environment had been extended beyond the classroom to include broader and richer experiences. As a result, they concluded that student interest and educational aspirations were heightened.

Carter’s (2000) research supported the specific benefits of classrooms that utilized team teaching for classroom instruction. His research indicated that low achieving students showed academic and social skills improvements. He found that these improvements were attributed to more teacher time and attention, reduced pupil-teacher ratios, and more opportunities for individual assistance. He added that the different teaching styles by the team benefited students as it afforded diverse opportunities for learning.

A review of the literature indicated many benefits for educators and students. Bair and Woodward (1964) suggested many benefits for teachers and students as well as Bittner (1995) who had a special interest in Title 1 students. Carter (2000) indicated that students benefited due to decreased student/teacher ratios and more opportunity for individual student assistance. He also commented on the mutual trust and respect teachers fostered working together. According to Bittner (1995), students who might fall through the cracks benefited from team teaching, especially children who had a difficult time with certain skills, but were not identified for extra help. She specifically stated that Title 1 students benefited from team teaching instruction.
In conclusion, the research questions answered were: How was team teaching defined in the literature? What models were used to implement the team teaching strategy? What were the benefits of team teaching? Through this study of literature, the researcher found that most researchers agreed on the definition of team teaching. Beggs (1964) defined team teaching as an arrangement where two or more teachers, cooperatively planned, instructed, and evaluated one or more class groups. In addition, Bair and Woodward (1964) stated that team teaching involved two teachers that were given responsibility to provide instruction for the same group of students. Finally, the research of Warwick (1971) and Welch, Brownell, and Sheridan (1999) determined the same definition, that the team teaching strategy involved two or more educators instructing the same group of students.

The main models of team teaching were presented by Cook & Friend (1995). These models included: (a) Lead and Support; (b) Rotation; (c) Simultaneous Instruction; (d) Tiered Instruction and (e) Co-Teaching. The traditional model of team teaching was described by Vaughn (1997). He declared that team teaching involved the general education teacher and the special education teacher working together to support students with special needs.

A thorough review of the literature indicated several benefits of team teaching for educators and students. The findings of Woodward (1964), Lobb (1964) and Warwick (1971) centered on the benefits to educators. They argued that team teaching was a more efficient use of labor with duplication of effort reduced. In addition, Dettmer, Dyck, & Thurston (1999) decided that other positive benefits of team teaching included more
opportunities for collaboration and a shared partnership in teaching responsibilities. The research of Carter (2000) suggested that the reduced student-teacher ratios was a positive benefit to low achieving students. Bair and Woodward (1964) observed a higher student interest in a team teaching environment. Finally and specifically, students enrolled in Title 1 reading programs benefited from team teaching instruction (Bittner, 1995).

In relation to the researcher’s study, the literature provided a greater understanding of team teaching. In general, the researcher gained an overall perspective on possible student achievement based on the implementation of team teaching. The researcher became aware of the possibilities and was able to determine which methods and procedures would best meet the needs of the researcher's students enrolled in a Title 1 Program.
The purpose of this project was to determine if the implementation of a team teaching strategy resulted in higher achievement in reading with students enrolled in a Title 1 Program. The research questions were: (1) How was team teaching defined in the literature? (2) What models were used to implement the team teaching strategy? (3) What were the benefits of team teaching? (4) Did student achievement increase in a Title 1 Program when a team teaching approach was utilized?

Participants

Six students in the sixth grade at a small, rural school in Northwest Ohio participated in this study. The target population of this study consisted of students enrolled in the Title 1 Program. Five of these students were females and one was male. The intervention took place in the general education classroom in a K-6 building. The participants were selected by qualifying for the Title 1 Program.

Treatment/Intervention

The researcher met with the general education teacher to determine which model of intervention would best meet the needs of the students. Based on the literature, it was decided that the Rotation model of team teaching would be utilized. In the Rotation model educators shared responsibility for teaching the same material to different groups of students. The cooperating teacher and the researcher met weekly to determine lesson plans. Within this model the classroom teacher had responsibility for the selection of the skill or concept to be taught or reinforced. The researcher's responsibility was to choose teaching strategies that best fit the needs of the six
students enrolled in the Title 1 program. The researcher then created lessons to accommodate Title 1 student’s learning styles.

The week began with whole class instruction. The classroom teacher introduced the skill to be learned and the expected outcome. The group of students including Title 1 students who needed individual instruction was placed in the researcher’s group. Each week the skill naturally differed; the researcher consistently met with identified Title 1 students, however, other students rotated in and out of the group depending on their understanding of the current skill or concept that was taught.

The students met daily with the researcher to be taught specific reading skills. The student instruction was structured to guide them through lessons emphasizing process skills. The students were assisted with vocabulary pronunciation, contextual meaning, and comprehension skills as each related to works of fiction, non-fiction, and poetry. Homework assignments were reviewed daily to determine adequate understanding of skills taught.

For the purposes of this project, the intervention continued through the first week of March when the second administration of the Gates-MacGinitie Reading Test was given.

Instruments

In order to answer question #4 data was collected from the Gates-MacGinitie Reading Test, Level 4, Form L (MacGinitie and MacGinitie, 1989). The researcher’s school district acquired the Gates-MacGinitie Reading Test and it was administered to qualify students for Title 1 instruction. In order to maintain the validity and integrity of
the testing process no portion of the test was reproduced in this document. Permission was granted from The Riverside Publishing Company to discuss the components of the test, how the test was administered, and the results of the test within the document. (See Appendix A for a copy of The Riverside Publishing Test Disclosure Policy.)

The Gates-MacGinitie Test consisted of two sections, vocabulary and comprehension. The vocabulary content was a forty-five item multiple choice test of word knowledge. The student’s task was to choose the word or phrase that meant most nearly the same as the test word. The test was a measure of word knowledge, not the ability to derive meaning from content.

The comprehension content consisted of forty-eight prose passages selected from published works. The passages were fiction and non-fiction from various content areas and written in a variety of styles. Some of the questions required constructing understanding based on information that was explicitly stated in the passage; others required constructing based on information that was implicitly stated in the passage.

The Directions for Administration Manual (MacGinitie and MacGinitie, 1989) had a short "script" for each test that the teacher read that described how to complete the sample questions. Tests were timed so the researcher needed access to a clock with a second hand.

Procedures

Two administrations of the Gates-MacGinitie Reading Test were required for all Title 1 students for this project. The state of Ohio also required two administrations of
the test to monitor student progress. The first administration was in August of 2004 and
the second administration was in March of 2005.

The Gates-MacGinitie Reading Test was administered over a two-day period.

On the first day of testing the students were taken to a quiet classroom where
distractions would be minimal. Two pencils with erasers were supplied to each student.
The researcher allowed five minutes to distribute pencils and booklets. Students wrote
their names and grade level in the appropriate spaces on the test booklet. The
vocabulary section of the test was administered first. The students were instructed to
open their test booklets to four sample questions. The instructions were read orally as
students followed along. Each question was read and students were asked to respond
with the correct answer. When it was determined that their response was correct the
students fill in the circle next to the correct answer. The instructor double-checked
student answer sheets for extraneous, faint or incompletely erased marks. At the
completion of the sample questions students were able to clarify any questions about
the test. After all questions were answered the students were directed to open their test
booklets to the beginning of the Vocabulary Test. The instructor made sure every
student was at the right starting place and understood they were to continue until they
had completed the forty-five questions. The students were instructed to begin and the
starting and ending time was written down in the Administration Manual. After twenty
minutes the students were instructed to stop, put their pencils down, and close their test
booklets. The instructor collected the booklets.
The next day the Comprehension section of the test was administered. The students were taken to a quiet classroom to ensure minimal distractions. Students were supplied two pencils with erasers. The test booklets were redistributed, face up, to make sure each student got the same booklet that was used for the Vocabulary Test. The students were then instructed to turn their book over to the practice page. Each student's book was checked to make sure they were on the correct page. Practice Story 1 and the answer options were read. The students were instructed to fill in the circle next to the correct response. Each booklet was checked to make sure students understood the directions and filled in the circle appropriately. Practice Story 2 and the answer options were read. The students decided which answer was correct and filled in the circle next to the answer they chose. When they were finished the teacher told them what the correct response should have been. If students filled in a different circle, they were instructed to erase carefully and fill in the correct circle. Student's booklets were checked to make sure both practice items were marked correctly. Final instructions for taking the test were read from the "scripted" section of the Administration Manual. The students were told to turn to the Comprehension Test section of the booklet. After questions concerning the test were answered the students were asked to point to the first question they would begin reading. As soon as all the students were in the right place they were instructed to begin the test. The beginning and ending time was recorded in the Manual. Exactly thirty-five minutes was allowed for the Comprehension Test. While the test was in progress the instructor walked around the
room and checked to make sure students were following directions, making their marks dark, erasing thoroughly when changing their marks, not looking at other student's work, and not stopping before the time was over. In exactly thirty-five minutes the students were told to stop, put their pencils down, and close their booklet. Each student's booklet was collected.

Timeline

The research plan was presented to the building principal and approved on August 23, 2004. The researcher contacted teachers on August 24, 2004 requesting appropriate dates for the first administration of the test. September 13th and 14th were the scheduled dates for testing with September 15th as a make up date. Testing was completed on September 15, 2004. Consent forms were received from parents before intervention was started. Intervention began on September 20, 2004 and continued until March 1, 2005. A parent/guardian meeting was held on October 26th to answer any questions and to inform parents/guardians how Title 1 services were being implemented. Dates for the second administration of the test were March 2nd and 3rd, 2005 with the 4th as a make up date. Testing was completed on March 4, 2005.

Data Analysis

Each student booklet was hand scored comparing student answers with the answers on the scoring key from the Manual for Scoring and Interpretation (MacGinitie and MacGinitie, 1989). The Vocabulary Test and Comprehension Test were scored separately. The number of wrong or omitted answers were marked and counted. The appropriate scoring key was used to ascertain the raw score (number of correct
answers). The raw score for the Vocabulary Test and Comprehension Test was recorded in the appropriate space on the back of the student's test booklet. Both raw scores were then added together for the Total Raw Score and recorded in the appropriate space. The raw scores were then converted into derived scores, Percentile Ranks and Grade Equivalents, which were obtained by using the norms tables at the end of the Scoring Manual. According to MacGinitie and MacGinitie (1989) the percentile rank would indicate where a raw score was located within the range of scores obtained by the national norming group. It indicated the percentage of students in the same grade whose raw scores were lower. MacGinitie and MacGinitie also stated that the Grade Equivalent determines the grade level for which the score would have been the median score, if the test had been given at that grade level. Results of both test administrations were charted to reveal the effectiveness of the intervention.

A six-column table was created to compare the raw score, percentile ranking and grade equivalent for the Fall and Spring administration of the same test. These two scores, along with the raw scores were the scores required by the researcher's school district and state mandates for record keeping for the Title 1 Program.

(See Appendix B for Comparison Table)

Summary

The purpose of this study was to determine if the implementation of a team teaching strategy resulted in higher achievement with students enrolled in a Title 1 Program. The research questions were: (1) How was team teaching defined in the literature? (2) What models were used to implement the team teaching strategy? (3)
What were the benefits of team teaching? (4) Did student achievement increase in a Title 1 Program when a team teaching approach was utilized? After a thorough analysis of the data gathered, the researcher was able to determine what the results were of the investigation.
Chapter IV: Results

The purpose of this project was to determine if the implementation of a team teaching strategy resulted in higher achievement in reading with students enrolled in a Title 1 Program. The research questions were: (1) How was team teaching defined in the literature? (2) What models were used to implement the team teaching strategy? (3) What were the benefits of team teaching? (4) Did student achievement increase in a Title 1 Program when a team teaching approach was utilized?

Gates-MacGinitie Reading Tests

Results from the Gates-MacGinitie Reading Test were used to determine if there was an increase in student reading achievement. The Gates MacGinitie Reading Test was designed to provide a general assessment of reading achievement. It consisted of two parts. The Vocabulary Test measured the student's reading vocabulary as defined by word knowledge, not the ability to derive meaning from context. The Comprehension Test measured ability to understand simple reading passages. Test results in vocabulary and comprehension were defined in three distinct reporting categories; raw score, percentile rank and grade equivalent.

Raw scores corresponded to the number of questions correctly answered on the test. Raw score indicated pre-intervention scores and post-intervention scores in vocabulary and reading comprehension. The Total Score was derived from adding the raw score from Vocabulary and Comprehension Tests together.

Figure 1 illustrates the comparison in pre test and post test vocabulary raw score. To do well on the vocabulary test a student must be able to recognize and decode
words and their synonyms. Meanings of words used in school materials must be known.

![Graph showing Raw Score Vocabulary Pre-Test and Post-Test Scores](image)

**Figure 1.** Comparison of pre and post test Vocabulary Raw Scores on the Gates-MacGinitie Reading Test

The Vocabulary Raw Scores data confirmed that 3 (or 50%) of the 6 students improved in vocabulary acquisition.

To do well on reading comprehension the student must also have had familiarity with the way ideas were structured, both implicitly and explicitly. The student must also have had effective strategies for making use of this background in constructing meaning for the selection.
Figure 2. Comparison of pre and post test Comprehension Raw Scores on the Gates-MacGinitie Reading Test

The data confirmed that 5 (or 83.3%) students scores increased in reading comprehension.
Figure 3. Comparison of pre and post test Total Raw Scores on the Gates-MacGinitie Reading Test

The data confirmed that 6 (or 100%) increased in total Raw Score.

![Aggregate Raw Scores](image)

Figure 4. Comparison of pre and post test Aggregate Raw Scores on the Gates-MacGinitie Reading Test

The Raw Scores data confirmed that 3 (or 50%) of the 6 students improved in vocabulary acquisition, while 5 (or 83.3%) students increased in reading comprehension, while 6 (or 100%) increased in total Raw Score.
Percentile rank identified scores that revealed the percent of students in a particular group that received lower scores on a test than other students taking the test at the same time and grade level. The scores demonstrated the student's relative position or rank in a group of students who were in the same grade and who were tested at the same time of year. Percentile rank ranged from 1 to 99. Percentile rank indicated where a raw score fits within the range of scores obtained by the national norming group. The researcher's district utilized percentile rank to qualify students for Title I services.

Figure 5. Comparison of pre and post test Vocabulary Percentile Scores on the Gates-MacGinitie Reading Test

Data revealed Percentile Rank in vocabulary increased in 3 (50%) students.
Figure 6. Comparison of pre test and post test Comprehension Percentile Rank Scores on the Gates-MacGinitie Reading Test

Data revealed Percentile Rank in reading comprehension increased in 5 (83.3%) students.
Figure 7. Comparison of pre and post test Total Percentile Rank Scores on the Gates MacGinitie Reading Test

Total Percentile Rank increased in 3 (50%) of the students.
Figure 8. Comparison of pre and post test Aggregate Percentile Rank Scores on the Gates-MacGinitie Reading Test

Aggregate data revealed Percentile Rank in vocabulary increased in 3 (50%) students while 5 (83.3%) students increased in comprehension. Total Percentile Rank increased in 3 (50%) of the students. The results of the Percentile Rank data were used to determine eligibility for Title 1 services.

Grade Equivalent

Grade Equivalent data described the student's location on an achievement continuum. The continuum described the lowest level of knowledge or skill on one end and the highest level of development on the other end. The Grade equivalent is a decimal number that described the student's performance in terms of grade level and
months. The digits to the left of the decimal point indicated the grade and those to the right represented the month within that grade.

![Vocabulary Grade Equivalent Pre Test and Post Test Scores](image)

**Figure 9.** Comparison of pre and post test Vocabulary Grade Equivalent Scores on the Gates-MacGinitie Reading Test

Data revealed that 3 (50%) students increased grade equivalent scores in vocabulary, 2 (33.3%) students decreased and 1 (16.6%) remained the same.
Figure 10. Comparison of pre and post test Comprehension Grade Equivalent Scores on the Gates-MacGinitie Reading Test

Data revealed that 5 (83.3%) students increased grade equivalency in comprehension by at least three months. Two of those students increased by more than one year.
Figure 11. Comparison of pre and post test Combined Vocabulary and Comprehension Grade Equivalent Scores on the Gates-MacGinitie Reading Test

Data revealed that 6 (100%) students increased total grade equivalent scores.
Figure 12. Comparison of pre and post test Aggregate Grade Equivalent Scores on the Gates-MacGinitie Reading Test

Grade Equivalent scores ranged from 3.3 to 5.2 in September to 3.4 to 6.0 in March. A grade equivalent score of 5.2 revealed that the student's score is about the same as would be expected of an average student in September of grade 5, if that student had taken the same test. Grade equivalent scores were most meaningful when they were within the intended grade ranges of the test level and the two adjoining levels.

Grade Equivalent data revealed 6 (100%) students increased grade equivalency. Two (33.3%) students increased grade equivalency by one grade or more. A total of 5 (83.3) students increased grade equivalency by at least three months in the study. At the beginning of the study 1 (16.6%) student was within one adjoining grade level. At the conclusion of the study 3 (50%) students were within one adjoining grade level in grade equivalency, while 1 (16.6%) of these students reached grade level equivalency.
These scores were not used to determine or diagnose areas of student strength or weakness. The scores were used to measure individual student growth from September to March.

Summary

The purpose of this study was to determine if the implementation of a team teaching strategy resulted in higher achievement in reading with students enrolled in a Title 1 Program. The research questions were: (1) How was team teaching defined in the literature? (2) What models were used to implement the team teaching strategy? (3) What were the benefits of team teaching? (4) Did student achievement increase in a Title 1 Program when a team teaching approach was utilized? Pre-intervention and post-intervention data indicated student scores.

In summary, 6 (100%) students increased their total score in the study. Total score increases indicated an increase in reading achievement. Total Score was the combination of vocabulary and comprehension scores. Total Vocabulary Raw Score (See Figure 1) increased in 3 (50%) students while Comprehension Test Raw Score increased in 5 (83.3%) students. Percentile Rank total scores (See Figure 2) revealed 5 (83.3%) students either increased or remained the same. Percentile Rank Vocabulary scores increased in 3 (50%) students while Percentile Rank Comprehension scores increased in 5 (83.3%) students. Grade Equivalent Total scores (See Figure 3) increased in 6 (100%) students. Grade Equivalent Vocabulary Scores increased in 3 (50%) students while Grade Equivalent Comprehension Scores increased in 5 (83.3%) students.
Chapter V: Discussion

The purpose of this project was to determine if the implementation of a team teaching strategy resulted in higher achievement in reading with students enrolled in a Title 1 Program. The research questions were: (1) How was team teaching defined in the literature? (2) What models were used to implement the team teaching strategy? (3) What were the benefits of team teaching? (4) Did student achievement increase in a Title 1 Program when a team teaching approach was utilized?

Meaning of Findings

The Rotation Model of team teaching was implemented in this study. In the Rotation Teaching Model the educators share responsibility for teaching the same material to specific groups of students at specified times. Scheduled collaborative meetings with the classroom teacher were held each week. Times of each meeting varied depending upon the issues presented. Scheduled collaborative meetings ranged from 30 to 90 minutes and included lesson plan review, changes in schedule, shared teaching strategies, individual student concerns and assessment strategies.

Title I is a supportive program. The classroom teachers established the curriculum. Intervention strategies for Title I students differed from general classroom instruction. While the academic content was the same for both groups, instructional strategies and pace fluctuated. To facilitate learning for Title I students the classroom teacher and the researcher determined which strategies to employ. The classroom teacher and the researcher shared resources.

The classroom teacher and the researcher shared the same classroom. A
typical day would begin with the whole class meeting as one group. The classroom teacher would introduce the concept to be taught then both groups met on either end of the classroom for instruction. The classroom teacher utilized one end of the classroom, and the researcher used the other end of the classroom for instruction. If a particular book was used only one whole class meeting was conducted. After the initial class period of introduction the groups would begin each scheduled class period with their respective instructor.

It was the researcher's contention that student achievement would increase if students were not removed from their reading class for Title 1 services. The data collected suggested that five student's comprehension achievement increased.

In addition, it was also indicated by the test results that vocabulary acquisition showed improvement for three of students involved in the project. The researcher determined the Vocabulary Test strictly determined the extent of a student's word knowledge without context. The Gates-McGinitie Vocabulary Test required students to identify the meaning of words in isolation. The students were presented with a vocabulary phrase and then were to determine the correct meaning from the four choices given.

During the course of the intervention, in which the Rotation Model of Team Teaching was instituted, reading strategies were implemented that incorporated vocabulary acquisition in context with comprehension of the intended selections. Words added to the student's schema gave meaning to the text that was read. Vocabulary was not taught in isolation.
The researcher sensed that student cooperation might have influenced test results. During the March administration of the Gates-Magninie Test one student's results were invalid and a second testing was necessary. The student seemed to be upset and not ready to take the test appropriately. The test required at least 35 minutes to complete and the student returned the test in seven minutes. The student filled in the bubbles without reading the selections on the comprehension section. It was necessary to reschedule the test when the student seemed to be in a better mood to cooperate. The scores from the second administration were more consistent with the student’s actual achievement when compared to the results of the September testing.

In addition, it was determined that student's attitude may have had an adverse effect on some test results. In the researcher's experience, it was noticed, that students who struggle with reading seem to avoid difficult reading passages, skimming over the selection or attempting only the first few sentences before selecting the correct response. During the test taking time students were aware that they were not allowed to receive prompts or cues from the proctor. It seemed to the researcher that two students hurried through the test without thoroughly reading each question. In a regular classroom situation the researcher was able to monitor each student to make sure the selection was read and understood before attempting to respond to discussion or questions. Making sure all test questions were read was out of the researcher's control.

The intervention of utilizing the Rotation Model of Team Teaching allowed the students enrolled in the Title 1 Program to maintain their identity as part of the whole
group while still receiving needed intervention. The students mentioned that they enjoyed the small group atmosphere within the larger classroom structure. Personal involvement seemed to be much easier for students who were not self-confident enough to participate in the whole group setting. The student’s had more opportunities to orally participate in reading activities that helped increase reading achievement.

**Summary**

The purpose of this project was to determine if the implementation of a team teaching strategy resulted in higher achievement in reading with students enrolled in a Title 1 Program. The research questions were: (1) How was team teaching defined in the literature? (2) What models were used to implement the team teaching strategy? (3) What were the benefits of team teaching? (4) Did student achievement increase in a Title 1 Program when a team teaching approach was utilized?

Through this study, the researcher sought to determine if students enrolled in a Title 1 Program demonstrated increased achievement in reading if a team teaching approach was utilized, rather than the traditional pullout format. The project included six students. These six sixth grade students were enrolled in a Title 1 Program in a small, rural K-12 school in a mid-west state. All six students were in the Title 1 Program during the 2004-2005 school year. In summary, according to the test results, 6 (100%) students increased their total score in the study. Total score increases indicated an increase in reading achievement.

Total Score was the combination of vocabulary and comprehension scores. Total Vocabulary Raw Score (See Figure 1) increased in 3 (50%) students while
Comprehension Test Raw Score increased in 5 (83.3) students. Percentile Rank total scores (See Figure 2) revealed 5 (83.3%) students either increased or remained the same. Percentile Rank Vocabulary scores increased in 3 (50%) students while Percentile Rank Comprehension scores increased in 5 (83.3%) students. Grade Equivalent Total scores (See Figure 3) increased in 6 (100%) students. Grade Equivalent Vocabulary Scores increased in 3 (50%) students while Grade Equivalent Comprehension Scores increased in 5 (83.3%) students.

The results of the data confirmed that achievement improved for these six students enrolled in a Title 1 Program when a team teaching approach was utilized.

Recommendations

Title 1 Programs require very specific application of the assessment procedure and instrument. District policy in this study required the use of the Gates-MacGinitie Reading Tests as the qualifying test for Title 1 services. Teacher recommendation is also part of the criteria used in identifying student need. Testing protocol was followed to maintain the reliability and integrity of the results. No variance of procedure was introduced in this study. The researcher adhered to the policy prescribed by the school district. Each researcher involved in Title 1 research should follow policy specific to the district in which the research is conducted. It was understood that the role of the Title 1 teacher was one of support to the regular classroom teacher and the core curriculum chosen by that teacher. The selection of the Rotation Model was the classroom teacher's preference. This model worked well for this particular group of students. Evaluation of student need would be the criteria for choosing a different model in the
future. As stated in the review of the literature, other models that could be used included the Lead and Support model, Simultaneous Instruction model, Tiered Instruction mode; and the Co-Teaching model. Choosing a model that will lend support, not supplanting reading instruction is critical.

It would be the recommendation of this researcher to extend the project over a longer period of time. Implementing the intervention of team teaching for Title 1 students over a longer period of time may have influenced different results in overall reading achievement. Extending the time frame of the study would also allow the researcher to incorporate State Achievement Test results into the final analysis.

In addition to the Gates-McGinitie Reading Test, it would be suggested to use other testing criteria. DIBELS (Dynamic Indicators of Basic Early Literacy Skills) would be an excellent research based instrument to ascertain increased achievement in reading. Using the results from the Woodcock Johnson Test of Achievement could also be administered for another source of data.

The technique implemented in this project was the Rotation Model of team teaching in which the teachers shared responsibility for teaching the same material to specific groups of students at specified times. Another technique that could be utilized would be the Lead and Support model where one educator has the primary teaching responsibility, while the other educator supports that instruction. This researcher would prefer to use the Co-Teaching model if this project was attempted again in the future. The Co-Teaching model would have both educators sharing the planning, instruction, and assessment of the students.
Research for this project was conducted in a sixth grade class. Further research for this project could include implementing the team teaching intervention model at each grade level. This researcher would also like to see the results in comparison to a control group taught with the team teaching intervention and the results of students in the traditional pull out method.

In addition, adding the dimension of a diagnostic measurement at the beginning and end of the project might add insight into prescribing definite strategies for individual student instruction, therefore documenting possible increased reading achievement.

Conclusion

The results of the data in this study indicated higher student achievement in reading when a team teaching approach was utilized. The data suggested that team teaching provided the needed instruction for this particular group of students to succeed.
References


APPENDIX A:

Riverside Publishing Test Disclosure Policy

Copyright Restrictions

All of Riverside Publishing's publications and many specialized forms and services are copyrighted. The purchaser and/or user acknowledges and agrees when ordering that the contents of the company's tests, including proprietary and confidential material, property, procedures, and information owned by Riverside and/or its authors, constitute what is legally termed trade secrets.

The tests and ancillary test materials, including answer documents, score reports, disks, and norms tables, are copyrighted. As such, they may not be reproduced, replicated, or transmitted, for any purpose, in whole or in part, in any form or by any means, electronic or mechanical, or be stored in a database or retrieval system or made accessible through the Internet or other network, without prior written permission by an authorized employee of the company.

To produce scoring service reports, Riverside Publishing uses copyrighted tables. The provision of the data from these tables does not give or imply permission to replicate norms data listed on the reports or to derive or extract data from the norms or other copyrighted tables. Such replication without prior written permission from an officer of the company is a violation of copyright laws.

Permissions and Licensing

Riverside Publishing requires a license of all users of norms tables, including users in nonprofit institutions. Test norms are an integral part of the test. Copying test norms without authorization is a violation of copyright.

Requests for permission to reproduce, translate, or modify all or any part of Riverside Publishing's copyrighted materials, including out-of-print titles, should be forwarded to the Riverside Publishing Contracts and Permissions Department prior to the time any work has begun. The requests should include information about the nature and purpose of the research study, thesis, report, or publication for which the reproduction is needed. The exact description of what is to be reproduced, how the reproduction is to be made, and information about the distribution and/or sales of the publication in which the reproduction will appear must be provided.

Information about licensing procedures for use of norms tables and similar Answer documents—answer sheets, answer folders, and answer booklets—are an integral part of the tests and are protected by copyright laws. All users, including school personnel, who wish to reproduce, modify, or adapt answer documents in any manner, including overprinting of generalized documents, are required to obtain licenses. Procedures for
royalty payment, based on number of answer sheets reproduced, are included in the licensing arrangement. Write to the Riverside Contracts and Permissions Department for additional information.
December 27, 2004

Ms. Ellen A. Rupp
Franklin Elementary
10322 SR 66
Archbold, OH 43502

Dear Ms. Rupp,

Thank you for your interest in the Gates-MacGinitie Reading Tests® (GMRT®). This letter is in response to your recent request for use of these materials in your research for your Masters of Education degree.

Since you are not copying or using any material from this test in your project, we believe that our Statement of Policy regarding Standard Test Disclosure (attached) will assist you with what you are looking for. However, if you are looking to copy any specific material, we will need to provide you with specific permission to do so. In that event, please forward copies of the material you are looking to use for our review.

Please send a copy of your research results to my attention at Riverside Publishing.

Sincerely,

Janet A. Wiedemann
Permissions Manager

jf
## APPENDIX B:

### Gates-MacGinitie Score Comparison Table

#### Comparison Table

**Vocabulary Test** – 45 Questions  
**Comprehension Test** – 48 Questions

<table>
<thead>
<tr>
<th></th>
<th>Vocabulary Score 9/04</th>
<th>Vocabulary Score 3/05</th>
<th>Comprehension Score 9/04</th>
<th>Comprehension Score 3/05</th>
<th>Total Score 9/04</th>
<th>Total Score 3/05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student 1</td>
<td>36</td>
<td>36</td>
<td>31</td>
<td>39</td>
<td>67</td>
<td>75</td>
</tr>
<tr>
<td>Student 2</td>
<td>26</td>
<td>25</td>
<td>30</td>
<td>35</td>
<td>56</td>
<td>66</td>
</tr>
<tr>
<td>Student 3</td>
<td>30</td>
<td>24</td>
<td>17</td>
<td>28</td>
<td>47</td>
<td>52</td>
</tr>
<tr>
<td>Student 4</td>
<td>28</td>
<td>32</td>
<td>25</td>
<td>37</td>
<td>53</td>
<td>64</td>
</tr>
<tr>
<td>Student 5</td>
<td>18</td>
<td>22</td>
<td>27</td>
<td>26</td>
<td>45</td>
<td>48</td>
</tr>
<tr>
<td>Student 6</td>
<td>26</td>
<td>34</td>
<td>26</td>
<td>33</td>
<td>52</td>
<td>67</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Vocabulary Percentile Rank 9/04</th>
<th>Vocabulary Percentile Rank 3/05</th>
<th>Comprehension Percentile Rank 9/04</th>
<th>Comprehension Percentile Rank 3/05</th>
<th>Total Percentile Rank 9/04</th>
<th>Total Percentile Rank 3/05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student 1</td>
<td>39</td>
<td>39</td>
<td>27</td>
<td>46</td>
<td>33</td>
<td>36</td>
</tr>
<tr>
<td>Student 2</td>
<td>11</td>
<td>6</td>
<td>25</td>
<td>32</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Student 3</td>
<td>19</td>
<td>5</td>
<td>4</td>
<td>16</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Student 4</td>
<td>15</td>
<td>16</td>
<td>14</td>
<td>38</td>
<td>12</td>
<td>27</td>
</tr>
<tr>
<td>Student 5</td>
<td>2</td>
<td>4</td>
<td>18</td>
<td>13</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>Student 6</td>
<td>11</td>
<td>21</td>
<td>16</td>
<td>26</td>
<td>11</td>
<td>23</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Vocabulary Grade Equivalent 9/04</th>
<th>Vocabulary Grade Equivalent 3/05</th>
<th>Comprehension Grade Equivalent 9/04</th>
<th>Comprehension Grade Equivalent 3/05</th>
<th>Grade Equivalent 9/04</th>
<th>Grade Equivalent 3/05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student 1</td>
<td>5.4</td>
<td>5.4</td>
<td>4.4</td>
<td>6.4</td>
<td>5.2</td>
<td>6</td>
</tr>
<tr>
<td>Student 2</td>
<td>3.9</td>
<td>3.7</td>
<td>4.3</td>
<td>5.3</td>
<td>4.1</td>
<td>4.4</td>
</tr>
<tr>
<td>Student 3</td>
<td>4.4</td>
<td>3.6</td>
<td>2.4</td>
<td>3.7</td>
<td>3.4</td>
<td>3.7</td>
</tr>
<tr>
<td>Student 4</td>
<td>4.2</td>
<td>4.6</td>
<td>3.4</td>
<td>5.6</td>
<td>3.7</td>
<td>5.4</td>
</tr>
<tr>
<td>Student 5</td>
<td>3.1</td>
<td>3.4</td>
<td>3.6</td>
<td>3.5</td>
<td>3.3</td>
<td>3.4</td>
</tr>
<tr>
<td>Student 6</td>
<td>3.9</td>
<td>5.1</td>
<td>3.5</td>
<td>4.6</td>
<td>3.6</td>
<td>5.2</td>
</tr>
</tbody>
</table>