

Lindenwood University

Digital Commons@Lindenwood University

Dissertations

Theses & Dissertations

Spring 3-2010

Evaluation of 6 + 1 Trait Writing and the Professional Development Training used to Implement the Program

Bruce E. Werkmeister
Lindenwood University

Follow this and additional works at: <https://digitalcommons.lindenwood.edu/dissertations>



Part of the [Educational Assessment, Evaluation, and Research Commons](#)

Recommended Citation

Werkmeister, Bruce E., "Evaluation of 6 + 1 Trait Writing and the Professional Development Training used to Implement the Program" (2010). *Dissertations*. 630.

<https://digitalcommons.lindenwood.edu/dissertations/630>

This Dissertation is brought to you for free and open access by the Theses & Dissertations at Digital Commons@Lindenwood University. It has been accepted for inclusion in Dissertations by an authorized administrator of Digital Commons@Lindenwood University. For more information, please contact phuffman@lindenwood.edu.

Evaluation of 6 + 1 Trait Writing and the
Professional Development Training used to Implement the Program

by

Bruce E. Werkmeister
March 2010

A Dissertation submitted to the Education Faculty of Lindenwood University
in partial fulfillment of the requirements for the
degree of

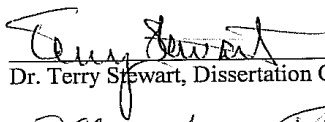
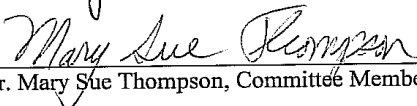
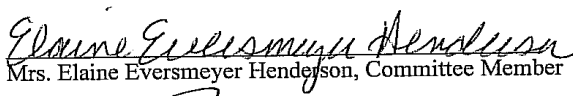

Doctor of Education

School of Education

Evaluation of 6 + 1 Trait Writing and the
Professional Development Training used to Implement the Program

by

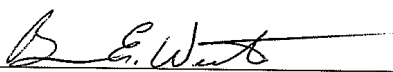
Bruce E. Werkmeister
This Dissertation has been approved as partial fulfillment of the
requirements for the degree of
Doctor of Education
at Lindenwood University by the School of Education

 _____ Dr. Terry Stewart, Dissertation Chair	<u>2-9-10</u> Date
 _____ Dr. Mary Sue Thompson, Committee Member	<u>2/9/2010</u> Date
 _____ Mrs. Elaine Eversmeyer Henderson, Committee Member	<u>2-9-10</u> Date
 _____ Mr. Edward Perantoni, Committee Member	<u>9 FEB 10</u> Date

Declaration of Originality

I do hereby declare and attest to the fact that this is an original study based solely upon my own scholarly work here at Lindenwood University and that I have not submitted it for any other college or university course or degree here or elsewhere.

Full Legal Name: Bruce Edward Werkmeister

Signature:  Date: 2/9/10

Acknowledgements

My research project for Lindenwood University was made possible through all of the help and direction I received from the entire staff. I want to thank my committee chairperson and advisor, Dr. Terry Stewart. He is truly a professional educator and caring mentor. He provided guidance and encouragement throughout my program. I am grateful for his never-ending support and confidence in me throughout this process. I will never forget everything he has done for me to help me further my career.

I want to thank the rest of my dissertation committee for all of the hours they put in helping me edit and mold my dissertation. Dr. Mary Sue Thompson, Mrs. Elaine Eversmeyer Henderson, and Mr. Edward Perantoni did a great job keeping me moving forward and pushing me to do my best. Your suggestions were always insightful and useful.

Sincere appreciation goes to the Board of Education, administrative team, teachers, and curriculum coordinators from the North R-I School District for providing me the access to study the effect the 6 + 1 Trait Writing program had on their students, staff, and school. I am thankful to the teachers that gave their personal time for this study by sharing their insight and perceptions about writing and professional development.

In closing, I would like to thank my family and friends for the motivation and encouragement they have shown me as I completed my doctoral program. I especially want to thank the love of my life, Connie, for keeping me going. Without your confidence in me and love, I wouldn't have been able to successfully complete this prestigious degree from Lindenwood University.

Abstract

The primary purpose of this study was to investigate the effects of the 6 + 1 Trait Writing program on student achievement and to explore the teacher perceived effectiveness of the 6 + 1 Trait Writing program on student achievement. This study concentrated on student achievement, as determined by the Missouri Assessment Program test, and the teachers' perception of the impact 6 + 1 Trait Writing had on the curriculum. The study also focused on the perceived effectiveness of the 6 + 1 Trait Writing professional development opportunities provided to teachers as determined by surveys and roundtable discussions.

The 2007, 2008, and 2009 MAP data was used to complete the quantitative portion of this study. Data was broken down by grade level. Schools must meet a proficiency standard each year to meet standards in the NCLB law. The researcher determined the percent of students who were proficient in each grade level for the quantitative portion. The researcher used the Chi Square Goodness of Fit test to see if there was statistical significance to the change in MAP scores. The researcher calculated the correlation coefficient between the North R-I School District and the Missouri state average scores to determine if there was a natural rate of maturation for the MAP test.

Roundtable discussions data were recorded, transcribed, and analyzed to identify themes. The data was used to determine beliefs and practices as related to the teachers' classroom 6 + 1 Trait Writing use. The survey portion of the study was analyzed by identifying themes and categories within teacher responses. Triangulation was achieved

by utilizing survey results and the roundtable discussions to determine future outcomes from 6 + 1 Trait Writing instruction.

Although data from this study did not demonstrate that integration of 6 + 1 Trait Writing program raised student achievement, the researcher still recommends the district continue utilizing the program because of positive teacher perceptions and increases by some subgroups and grade levels. While one grade level groups showed an increase, the majority of the grade levels showed a decrease in writing achievement. The major themes that were found include providing structure for teachers to teach and evaluate writing through a step-by-step process and providing consistent professional development and accountability of teachers. The researcher recommends further longitudinal study to determine the true effectiveness of the program since this study focused on the first year implementation of 6 + 1 Trait Writing.

Table of Contents

List of Tables	x
List of Figures	xi
Chapter I - Introduction	1
Background	1
Problem Statement	4
Rationale for Study	5
Independent Variable	8
Dependent Variable	8
Hypotheses	9
Limitations of Study	9
Standardized Testing	9
Subject Characteristics	10
Mortality	11
Location	11
Classrooms	12
Data Locations	12
Socioeconomic Status	12
Threat to Internal Validity	13
Location	13
Instruments	13
Data Collector Characteristics	13

Testing.....	14
History.....	15
Maturation.....	15
Regression.....	16
Implementation	16
Attitude	16
Teacher Perception.....	17
Definition of Terms.....	17
Summary	22
Chapter II - Review of Literature.....	23
Introduction.....	23
Student Achievement.....	24
Learning.....	27
History of Writing Instruction	29
Writing Conventions.....	30
Writing Instruction Challenges	32
What is 6 + 1 Trait Writing?	34
Ideas	35
Organization.....	35
Voice.....	36
Word Choice	36
Sentence Fluency	37
Conventions	37

Presentation.....	38
Conclusion on 6 + 1 Trait Writing.....	38
Professional Development	39
How does the building of school culture effect professional development?	40
Can keeping professional development simple work?.....	41
How does technology effect professional development?.....	43
Conclusion of professional development.....	45
Summary	46
Chapter III - Methodology	48
Introduction.....	48
Research Design.....	49
Research Questions.....	51
Quantitative Research Hypotheses	52
Qualitative Research	52
Participants.....	53
External Validity.....	54
Instrumentation	54
Dependability of Scale Scores	54
Dependability of Scores from Open-Ended Items.....	55
Research Design Procedure	55
Data Analysis.....	57
Summary	58
Chapter IV - Results.....	60

Introduction.....	60
Quantitative Results.....	61
Interpreting the Data	62
Research Question One.....	62
Goodness of Fit Test.....	62
North R-I Third Grade	63
North R-I Fourth Grade	64
North R-I Fifth Grade	65
North R-I Sixth Grade.....	66
North R-I Seventh Grade	67
North R-I Eighth Grade	68
Correlation Coefficient Test	70
North R-I and Missouri Third Grade	70
North R-I and Missouri Fourth Grade	72
North R-I and Missouri Fifth Grade	74
North R-I and Missouri Sixth Grade.....	75
North R-I and Missouri Seventh Grade	77
North R-I and Missouri Eighth Grade	78
Research Question Two.....	80
North R-I School District Survey Results.....	81
North R-I School District Roundtable Discussions Results	84
Summary	88
Chapter V - Conclusions and Recommendations	90

Introduction.....	90
Overview of the Study	91
Research Questions	91
Summary of Findings.....	92
Research Question One.....	92
Research Question Two	93
Discussion of Findings.....	95
Limitations	97
Standardized Testing.....	97
Subject Characteristics.....	98
Classrooms	98
Socioeconomic Status	98
Recommendations.....	99
Recommendations for Future Research	99
Recommendations for Improving Educational Practice	100
Recommendations for Professional Development.....	101
Conclusion	102
References.....	103
Appendix A - Consent Form.....	113
Appendix B - Letter	114
Appendix C - Survey	115
Appendix D - Roundtable Discussion Questions.....	116
Vitae.....	117

List of Tables

	Page
Table 1: Adequate Yearly Progress of the Subgroups in Communication Arts for the State of Missouri.....	6
Table 2: Adequate Yearly Progress of the Subgroups in Communication Arts for the North R-I School District.....	7
Table 3: North R-I Third Grade MAP Goodness of Fit Test.....	64
Table 4: North R-I Fourth Grade MAP Goodness of Fit Test.....	65
Table 5: North R-I Fifth Grade MAP Goodness of Fit Test.....	66
Table 6: North R-I Sixth Grade MAP Goodness of Fit Test.....	67
Table 7: North R-I Seventh Grade MAP Goodness of Fit Test.....	68
Table 8: North R-I Eighth Grade MAP Goodness of Fit Test.....	69
Table 9: North R-I MAP Goodness of Fit Test Summary.....	70
Table 10: Third Grade Correlation Coefficient of MAP Scores.....	72
Table 11: Fourth Grade Correlation Coefficient of MAP Scores.....	73
Table 12: Fifth Grade Correlation Coefficient of MAP Scores.....	75
Table 13: Sixth Grade Correlation Coefficient of MAP Scores.....	76
Table 14: Seventh Grade Correlation Coefficient of MAP Scores.....	78
Table 15: Eighth Grade Correlation Coefficient of MAP Scores.....	79
Table 16: North R-I Correlation Coefficient of MAP Scores.....	80

List of Figures

	Page
Figure 1: North R-I and Missouri Third Grade.....	72
Figure 2: North R-I and Missouri Fourth Grade.....	74
Figure 3: North R-I and Missouri Fifth Grade.....	75
Figure 4: North R-I and Missouri Sixth Grade	76
Figure 5: North R-I and Missouri Seventh Grade.....	78
Figure 6: North R-I and Missouri Eighth Grade	80

Chapter I – Introduction

Background

School districts in the United States have evolved throughout history due to the beliefs and needs of society. Some of the greatest changes in education have happened during the past few decades. During the 1980s and 1990s, research in education and the analysis of data helped develop more strenuous and measurable standards (Berends, 2004). The rationale for these standards was to devote consistent academic expectations for all students in the public educational system. The standards movement was developed by states to answer this need. Missouri developed the Missouri Assessment Program (MAP) and Show-Me Standards to fulfill the standards based requirement (Missouri Department of Elementary and Secondary Education [MODESE], 2000).

The greatest change in education occurred when the No Child Left Behind Act (NCLB) became law in 2002. NCLB is an authorization by the federal government that established accountability measures for all schools, focusing on closing the achievement gap and raising reading, writing, and math scores to proficiency for 100 percent of public school students by the year 2014 (NCLB, 2002).

Accountability is a term used by many educators to describe the NCLB Act. As stated by Nichols, Glass, and Berliner (2006),

The goal of NCLB is ambitious—to bring all students up to a level of academic ‘proficiency’ within a 15-year period through a system of accountability defined by sanctions and rewards that would be applied to schools, teachers, and students in the event they did not meet predefined achievement goals. (p. 5)

Accountability is measured by each state using the testing method the state currently has in place. The state of Missouri uses the Missouri Assessment Program (MAP) testing to measure student proficiency in Communication Arts, Mathematics, and Science in grades three through eight (MODESE, 2000).

The challenge for school districts across the United States is to implement highly effective professional development, programs, and systems to meet the NCLB expectations. Braunger and Lewis (2006) stated that high quality professional development is needed to improve student performance on these accountability measures. The problem is determining which programs are going to be more effective. Initiatives and programs are often labeled and marketed as research-based even though frequently there was not appropriate research conducted to validate findings that truly support student achievement (Braunger & Lewis, 2006). Frequently schools send teachers to outside professional development workshops, or schools bring host professional development presenters. However, these have proven to be ineffective due to the fact that one time professional development activities have no follow up which results in a waste of time and money. “Prescribing professional development to fix teachers without providing opportunities for job-embedded professional learning squanders a powerful opportunity to grow strong professional cultures in schools” (Baron, 2008, p. 56).

A common factor in many effective schools was the emphasis on job-embedded professional development programs geared toward true research-based teaching strategies (Taylor, 2003). Cutler and Graham (2008) stated that successful school districts identified many writing programs such as 6 + 1 Trait Writing to meet the challenge of improving student success. However, simply identifying the writing improvement program was not

enough without targeted professional development to implement these programs.

“Successful schools have ongoing professional development and a strong sense of community” (Taylor et al., 2003, p. 3).

Targeted professional development needed to implement writing programs is the cornerstone to student achievement (Stretch, 1994). Through professional development and various writing activities, student achievement scores are enhanced. Strickland (1991) stated that being a good writer gives students the tools necessary to be successful in school. “Most teachers (72%) took an eclectic approach to writing instruction, combining elements from the two most common methods for teaching writing: process writing and skills instruction” (Cutler & Graham, 2008, p. 3). Cutler and Graham came up with the following seven recommendations for writing instruction (2008, p. 3):

1. Increase the amount of time students spend writing.
2. Increase time spent on expository writing.
3. Provide better balance between time spent writing, learning writing strategies, and teaching writing skills.
4. Place more emphasis on fostering students’ motivation for writing.
5. Develop stronger connections for writing between home and school.
6. Make computers a more integral part of the writing program.
7. Improve professional development for writing instruction in teacher education programs.

The 6 + 1 Trait Writing model is an approach to teaching and assessing writing, which encompasses the seven recommendations for writing instruction (Culham, 2003). 6 + 1 Trait writing was designed to develop a vocabulary to describe what good writing

looks like no matter what type of writing it is. The writing program focuses around the six traits of writing with the “plus one” being the presentation. The six writing traits consist of ideas, organization, voice, word choice, sentence fluency, and conventions (2003, p. 10).

Problem Statement

Since the enactment of NCLB, there has been a steady decline in the number of school districts in the state of Missouri meeting Adequate Yearly Progress (AYP) (MODESE, 2008, p. 2). Each year an increasing number of school districts have been placed on the “needs improvement” list due to missing the targets of AYP.

The North R-I School District missed the target for AYP for the first time during the 2007-2008 school year. If the district does not meet the target during the 2008-2009 school year, the district will be placed on the Needs Improvement list by MODESE. The North R-I School District curriculum coordinators identified writing as the key reason for not meeting the AYP target in Communication Arts. The curriculum coordinators determined that the district’s previous approach to writing instruction was not effective; therefore, the school district implemented 6 + 1 Trait Writing to address this area of concern. The need for student improvement in writing has prompted the following quantitative and qualitative research questions.

The quantitative research question directing this study was: Did the implementation of 6 + 1 Trait Writing increase student achievement in the area of Communication Arts in the third through eighth grades?

The research question guiding the qualitative portion of the study was: Did teachers perceive 6 + 1 Trait Writing to be effective in promoting student achievement?

The subsequent questions were created to answer this main qualitative question:

1. What were the teachers' perceptions of their roles and responsibilities in the integration of the 6 + 1 Trait Writing strategies in their daily instruction?
2. What were the teachers' perceptions of 6 + 1 Trait Writing on student achievement?
3. How will teacher perceptions affect the success of the 6 + 1 Trait Writing program?
4. How does 6 + 1 Trait Writing professional development enhance the quality of writing instruction leading to student achievement?

Teacher evaluations and roundtable discussion of 6 + 1 Trait Writing training were used to measure the effectiveness of the study.

Rationale for Study

MODESE reported that during the 2007-2008 school year, the state of Missouri as a whole only met five out of ten subgroups in communication arts on AYP. Listed are the ten subgroups as measured by AYP and whether the State of Missouri as a whole met the proficiency target (2008, p. 1).

Table 1

Adequate Yearly Progress of the Subgroups in Communication Arts for the State of Missouri

Subgroup	Proficiency Level
Total student population	Met target
Asian/Pacific Island students	Met target
Black students	Not met target
Hispanic students	Not met target
American Indian students	Met target
White students	Met target
Other/Non-Responding students	Met target
Free/Reduced Lunch students	Not met target
IEP students	Not met target
LEP students	Not met target

The North R-I School District student population is under 400 students, which results in only having three subgroups. The North R-I School District had similar results meeting only two out of three subgroups. Listed are the three subgroups and whether North R-I School District met the proficiency target or not.

Table 2

Adequate Yearly Progress of the Subgroups in Communication Arts for the North R-I School District

Subgroup	Proficiency Level
Total student population	Met target
White students	Met target
Free/Reduced Lunch students	Not met target

North R-I School District did not meet AYP status for Communication Arts for the first year. If the district does not meet again for the 2008-2009 school year, the district will be placed on the Needs Improvement list by MODESE. The district will be required to notify parents about the designation and will be mandated to prepare a new school improvement plan as outlined in NCLB (MODESE, 2008, p. 4). Thus, the district must continuously evaluate the effectiveness of any programs designed to increase student achievement.

The purpose of this study was to determine the effectiveness of the 6 + 1 Trait Writing and the professional development used to implement the program in terms of student achievement as measured by the third through eighth grade MAP data in the area of Communication Arts. As Taylor, et al. (2003) stated “Successful schools have ongoing professional development and a strong sense of community” (p. 3). These schools considered the following questions: “How will we provide opportunities for teachers to learn, and how will we support their learning in order to improve their success as teachers of reading and writing?” (Taylor et al., p. 3) The North R-I School District identified and adopted the 6 + 1 Trait Writing method to address the needs associated with improving

student achievement in writing and to meet the AYP requirement in Communication Arts.

This project evaluated the impact of 6 + 1 Trait Writing on student achievement as measured by the Communication Arts MAP test scores. The North R-I School District third through eighth grade MAP test data from 2006-2007 and 2007-2008 will be used as the control group. The data will be compared to third through eighth grade data from 2008-2009, which are the scores from students having the benefit of instructional practice influenced by 6 + 1 Trait Writing.

Independent Variable

The North R-I School District hired the Mid-Missouri Regional Professional Development Committee to provide ongoing 6 + 1 Trait Writing professional development to all district teachers during the 2008-2009 school year to address the writing deficiencies of students. The 6 + 1 Trait Writing professional development taught concepts about ideas, sentence fluency, organization, word choice, voice, conventions, and presentation. The goal of the professional development program was to provide teachers with the skills and examples for teaching writing across the curriculum. Therefore, the independent variable in this study was the implementation of the 6 + 1 Trait Writing program. This study measured the impact of the 6 + 1 Trait Writing program on student achievement.

Dependent Variable

NCLB requires annual testing of all students grades three through eight in Communication Arts. MAP data was used to evaluate Missouri's progress toward the requirements outlined under NCLB for grades three through eight. Since schools were

held accountable for meeting AYP as determined by scores on the MAP test, the scores were to be the dependent variable of this study. The study looked specifically at the academic achievement of third through eighth grade students who were taught using the research-based strategies of 6 + 1 Trait Writing during the 2008-2009 school year. Communication Arts 2009 MAP test scores from North R-I were generated by the experimental group of students influenced by the implementation of 6 + 1 Trait Writing professional development. These MAP scores were compared to 2007 and 2008 scores not influenced by the implementation of 6 + 1 Trait Writing.

Hypotheses

H₁: The implementation of 6 + 1 Trait Writing will improve student achievement as evidenced by a statistically significant increase in Communication Arts scores on the MAP test.

H₀: The implementation of 6 + 1 Trait Writing will not improve student achievement as evidenced by a statistically significant increase in Communication Arts scores on the MAP test.

Limitations of Study

Threats to validity could influence student achievement through teacher perceptions and test scores. While it was proposed that the implementation of 6 + 1 Trait Writing had a statistically significant impact on student achievement, as measured by the MAP, several limitations have been identified.

Standardized Testing. The first limitation to this study was the performance based test used in order to determine student achievement. The state of Missouri has adopted the use of the Missouri Assessment Program (MAP) to serve as the official testing

instrument (MODESE, 2008, p. 1). Substantial problems existed within NCLB testing and accountability structure due to the use of a variety of testing programs. “Researchers identified loopholes that state, districts, and schools used to improve test scores without improving student learning” (Association for Supervision and Curriculum Development [ASCD], 2006, p. 10). According to Chhabra and McCardle (2004), these practices cheat students at the state level by making tests easier at the local level by excluding low-performing students or providing personal tutors. Teachers modify state and local results by getting some low achieving students to not attend school on the test day to trick the accountability system. Standardized tests do not take a complete look at what the students have learned but merely a snapshot as to what knowledge they can recall from the students’ preparation for the test. Since the study used MAP data to determine student improvement in writing, standardized testing is a limitation to the study.

Subject Characteristics. The second possible limitation of this study was the subject characteristics threat. The subjects in this study differed on such variables as gender, reading ability, socioeconomic background, ethnicity, vocabulary, and age. Since the researcher had no control over the selection or formation of the comparison groups, it was likely that the groups were not fully equal on one or more of the preceding variables. The selection of people for this study resulted in individuals or groups differing from one another in unintended ways that were related to the variables to be studied (Fraenkel & Wallen, 2009, p. 112). Since the study looked at all third through eighth grade students at North R-1 School District which are differentiated by the subgroups of NCLB and teachers’ implementation of 6 + 1 Trait Writing, the researcher determined that subject characteristics are not a limitation.

Mortality. The third possible limitation of this study was the threat of mortality. It is common in any study to lose some of the subjects as the study progresses (Fraenkel & Wallen, 2009). Teacher participants may have failed to complete the 6 + 1 Trait Writing professional development training, failed to complete the survey questionnaire, switched grade levels, or left the district in order to pursue other professional avenues. Student subjects may have been absent during the MAP testing window or moved in or out of the district within the study's timeframe. The loss of such subjects may have limited the ability to generalize the data, but also could have introduced a bias (Fraenkel & Wallen). In this study, the number of students remained similar in each grade level so mortality does not produce a limitation.

Location. A fourth limitation to this study was the locations in which the data were collected. All teachers in the North R-I School District received 6 + 1 Trait Writing professional development training in the same location. While 6 + 1 Trait Writing professional development was job-embedded and mandated by North R-I School District, it was difficult to know if teachers consistently used the research-based strategies in their teaching. While it was reasonable to conclude that teachers at North R-I agreed that improving writing achievement of students was a necessary goal, it was reasonable to expect differences among the professionals. Although all educators who participated in the study were provided the same 6 + 1 Trait Writing professional development, these educators had different teaching styles and levels of implementation. Location is not a limitation to the study due to professional development training taking place in one location.

Classrooms. A fifth limitation to this study was the classrooms themselves.

Typically each grade level at North R-I School District has one teacher for grades three through six with two teachers for grades seven and eight. The small number of students may have limited the ability to generalize the data but also could have introduced bias (Fraenkel & Wallen, 2009). Each classroom and grade had different resources available for instruction. Classes with fewer resources might have more disruptive behavior and higher expectations of teacher failure (Fraenkel & Wallen). These variables account for higher performance by students in individual classrooms and grades.

Data Locations. A sixth limitation to the study was the locations in which tests, surveys, and roundtable discussions were administered. The location of these events may have affected responses. Student performance on tests may have been lower if tests were given in noisy or poorly lit rooms (Fraenkel & Wallen, 2009). Surveys and roundtable discussions may not have been answered with accuracy because of the expectations for the district mandated implementation of 6 + 1 Trait Writing. Teachers may have answered the surveys in favor of what they thought the researcher wanted to know.

Socioeconomic Status. Socioeconomic status was a seventh limitation to the study. Payne (2005) found that the majority of minority and poor students could not use formal writing as a way of communicating. Since the majority of state mandated assessment tests were developed using formal writing, students of poverty often times had difficulty performing effectively on these tasks (p. 23). The North R-I School District consistently has over 40% free and reduced lunch population, which makes socioeconomic status a limiting factor to student achievement. Some teachers in each building went to professional development training to meet the needs of low

socioeconomic students. Since some teachers went to this training, the researcher cannot conclude that 6 + 1 Trait Writing was the only contributing factor to the changes in MAP scores in this study.

Threat to Internal Validity

Fraenkel and Wallen (2009) describe ten threats to internal validity, which can invalidate a research study. Any one of the ten threats can alter the results of the research, which can be prevented by addressing each threat individually. The ten threats are addressed as follows:

Location. In order to limit the threat of location, the researcher tried to hold the location constant. All professional development training was held in the same location, and all teachers were given the same resources to teach the research-based strategies. The classrooms were similar and the MAP testing window was consistent. The surveys were sent at the same time and the subject identities were held anonymous. Location was not a threat to this study.

Instruments. A second threat to internal validity was the way in which instruments were used. Since the surveys were administered anonymously via an on-line tool, they were not subjected to instrument decay or interviewer fatigue (Fraenkel & Wallen, 2009). With the use of curriculum coordinators to facilitate the roundtable discussions, there could have been some changes in the interpretations of the results based on fatigue. The roundtable lasted for one hour and was held in one session. Instruments used could be a threat to this study due to participant's perceptions.

Data collector characteristics. The characteristics of data gatherers, an inevitable part of most instrumentation, may have been a third threat to internal validity. The

characteristics of individuals who collected the data for the study may have also affected the nature of the data they obtained (Fraenkel & Wallen, 2009). The researcher analyzed MAP data for grades three through eight and included all students who took the test.

To handle data collector bias, all procedures were standardized. This study collected MAP standardized test data, survey results, and the roundtable discussions. Individuals, who were unaware of this study and its hypothesis, collected the MAP data. The collectors were unable to identify the particular characteristics of the individuals or groups from whom the data was being collected (Fraenkel & Wallen, 2009). To control data collector bias, surveys were sent to teachers via an online survey tool and were reported anonymously. The researcher did not facilitate the roundtable discussions. Teachers were not made aware of the hypothesis of the study. All data collected was held in a secure site. The data collector's characteristics were not a threat to this study.

Testing. MAP test data was used as a way to gauge the student achievement in relation to the 6 + 1 Trait Writing professional development program implemented in the North R-I School District. Students from the North R-I School District took the MAP test in third through eighth grades in the area of Communication Arts. While the content area was kept consistent, the test in each grade level was different, thus decreasing the testing threat. To reduce a testing threat, students took a different test each year and there was no pretest used in order to help prepare them. Students were not made aware of the study (Fraenkel & Wallen, 2009). While comparing MAP data at a certain grade level, data was analyzed to track grade levels from one year to the next and not individual students. Testing was not a threat to this study.

History. This study was conducted during the years of 2007, 2008, and 2009. During this time period, there were no major local or worldwide events that took place that may have contributed to changed attitudes or perceptions of teacher or student in relation to the MAP test, survey, or roundtable discussions. The MAP test had a consistent testing window and specific parameters that had to be followed while testing occurred, including uninterrupted testing time and consistent testing directions (Fraenkel & Wallen, 2009). History did not provide a threat to this study.

Maturation. In order to control the threat of maturation, this study did not follow individual students over the course of one school year. Instead the study focused on comparing the change in student achievement from one year to the next. MAP test results were analyzed comparing how students in grades three through eight did each year. Data from the North R-I School District from the 2007 and 2008 MAP testing was analyzed in order to determine the natural rate of maturation in accordance with the MAP test. The data was used to see if each grade level improved their writing scores rather than individual students. This was utilized to determine if 6 + 1 Trait Writing professional development was the factor in increasing student achievement as warranted by data from the MAP test. According to Fraenkel and Wallen (2009), “change during an intervention may be due to the factors associated with the passing of time rather than to the intervention itself” (p. 173). Maturation could have been a serious threat if this study used pre-post data for the intervention group or if it spanned a number of years (Fraenkel & Wallen). Since the study did not use pre-post data for individual students, and the 6 + 1 Trait Writing professional development lasted only one year, it does not have a threat due to maturation.

Regression. A regression threat may be present whenever change is studied in a group that performs either extremely low or high in its pre-intervention (Fraenkel & Wallen, 2009). This study compared groups, which handled this threat. Performance was not a factor when student groups were chosen. Groups were chosen based on grade level in school and teacher implementation of the 6 + 1 Trait Writing professional development program. MAP test data was used in determining the effectiveness of the 6 + 1 Trait Writing program on student achievement. Therefore, regression is not a threat to this study.

Implementation. The implementation threat may be present any time the experimental group was unintentionally treated differently, which may have given them an advantage (Fraenkel & Wallen, 2009). In order to control the threat of implementation, all teachers were mandated by the North R-I School District to receive 6 + 1 Trait Writing professional development and to implement the research-based writing strategies with fidelity in each classroom. While all teachers within the North R-I School District were mandated to implement 6 + 1 Trait Writing into their lessons, it was reasonable to assume that all teachers had different abilities and utilized different methods when delivering instruction. Teachers were not allowed to choose their method for teaching writing through the study. All teachers were directed to teach all strategies that were learned during the 6 + 1 Trait Writing professional development. To minimize threat of implementation, the researcher was not one of the individuals who implemented a method of the intervention study.

Attitude. The attitude of the subjects was not a limitation to the study because all students were treated the same and were unaware that the study was taking place. In the

study, students in the experimental group were treated to regular instruction, taking place over the course of a one-year period (Fraenkel & Wallen, 2009).

Teacher perception. In the case of the implementation of the 6 + 1 Trait Writing program, teacher perception of the professional development program and the effectiveness of the program as compared to previously used methods played a significant role in determining the effectiveness of the program. Teacher perception is a threat, because these positive or negative perceptions effect the implementation of the 6 + 1 Trait Writing program. The threat of teacher perception was addressed in the roundtable discussion and teacher survey in the qualitative portion of the study.

Definition of Terms

Adequate Yearly Progress (AYP). All public school districts along with individual schools within those districts must make satisfactory improvements each year to become proficient in Communication Arts and Math by the year 2014. The Department of Elementary and Secondary Education established specific annual targets for AYP in Communication Arts and Math to meet this NCLB requirement (NAEP, 2009, p. 26).

Advanced. In the test area of writing, students must consistently demonstrate the use of standard rules and conventions of Standard English language. “They use logical order, cohesive devices, clear and varied sentences, writing techniques. Students can target specific audience and the purpose is well defined” (MODESE, 2008, p. 6).

Basic. In the test area of writing, students can write a paragraph to a specific audience. They use correct letter writing format with a general usage of Standard English including spelling and revising (MODESE, 2008, p. 6).

Below Basic. In the test area of writing, students demonstrate the ability to develop a graphic organizer, write a basic paragraph and show some awareness of who the audience is. They can demonstrate the use of simple rules of Standard English (MODESE, 2008, p. 6).

Constructed-Response. Constructed-response items require students to write a short response to questions rather than just selecting an appropriate response from a list of answers. Students show their work when answering questions which provides information about how students arrive at their answers (MODESE, 2008, p. 1).

Department of Elementary and Secondary Education (DESE). DESE will be used to represent the Department of Elementary and Secondary Education for the state of Missouri (MODESE, 2007, p. 1).

Grade Level Expectations (GLE). Grade level expectations represent DESE's effort to define the Show-Me Standards, in order to help educators' articulate precise learning outcomes for their students. These expectations are the basis for MAP assessments and serve as achievement targets (MODESE, 2008, p. 2).

In-service. Teacher professional development training used to learn new skills or techniques to improve instruction and student achievement (Ertmer, et al., 2003).

Level Not Determined. Students taking the MAP test can earn this label if they did not take the appropriate MAP test, if they had the test read to them, or did not attempt to complete the test by completing at least one question (MODESE, 2008, p. 1).

Missouri Assessment Program (MAP). A testing program administered annually to elementary, middle, and high school students in the state of Missouri to measure

program effectiveness and to comply with federal regulations outlined in NCLB (MODESE, 2008, p. 1).

Missouri School Improvement Program (MSIP). “The Missouri School Improvement Program has the responsibility of reviewing and accrediting 524 School Districts in Missouri within a five-year review cycle” (MODESE, 2008, p. 1).

National Assessment of Educational Progress (NAEP). NAEP is the only nationally recognized assessment for determining what America’s students know and can accomplish in various subject areas. “Assessments are conducted periodically in mathematics, reading, science, writing, the arts, civics, economics, geography, and U.S. history. Since NAEP assessments are administered uniformly using the same sets of test booklets across the nation, NAEP results serve as a common metric for all states and selected urban districts” (NAEP, 2007, p. 2).

Nation’s Report Card. The Nation’s Report Card is the system used to inform the American public about the academic achievement of elementary and secondary students. “The report card communicates the findings of the NAEP performance among states, urban districts, public and private schools, and student demographic groups” (NAEP, 2007, p. 22).

National Writing Project. The National Writing Project is a nationwide network of educators working together to improve the teaching of writing in the nation's schools (National Writing Project, 2003).

Needs Improvement List. School districts are reported to the public as a district in need of improvement if the district does not meet AYP in one content area for two consecutive years (MODESE, 2008, p. 1)

No Child Left Behind Act of 2001 (NCLB). The No Child Left Behind Act of 2001 reauthorized the Elementary and Secondary Education Act (ESEA)—the main federal law affecting education from kindergarten through high school. NCLB law mandates that all students will be proficient in the area of Math and Communication Arts by 2014. “It is a law that focuses on accountability for results, more choices for parents, greater local control and flexibility, and an emphasis on doing what works based on scientific research” (NAEP, 2007, p. 1).

Outstanding Schools Act of 1993. Also known as Missouri Senate Bill 380, the Outstanding Schools Act established challenging academic standards for all students. The law set up support systems to provide professional development for educators to improve the quality of curriculum and instruction. The act provided a more equitable funding formula for public education in the state of Missouri. The act called for increased accountability in improving student academic performance by establishing the Show-Me Standards, curriculum frameworks, a new statewide assessment, professional development for educators, and professional standards for educators (MODESE, 2008, p. 1).

Performance events. Performance events are the MAP item that requires students to work through more complicated items. A writing prompt is used for students to demonstrate their writing proficiency on an open-ended item. The student writing is scored for overall writing ability using a four-point scoring guide (MODESE, 2008, p. 1).

Professional development. Professional development is the process that teachers use to improve personally and to help the entire school community to grow. Teachers

learn new techniques and programs from conferences, workshops, collaboration from other professionals to increase current knowledge and improve student achievement (Gruenert, 1998).

Proficient. In the test area of writing, students can review and edit writing for relevant details and to determine the purpose of the selection. Students can organize and edit text consistently using rules and conventions of Standard English language (MODESE, 2008, p. 6).

Research-based strategies. Research-based strategies are writing strategies that have been proven effective in raising student achievement. These strategies have undergone thorough, systematic, and objective procedures to determine validity as it relates to writing development, writing instruction, and writing difficulties. It involves data analysis and relies on measurements or observational methods that provide data (Chhabra & McCardle, 2004).

Selected-response items. Selected-response items are multiple choice questions that present students with a question followed by three or four response options (MODESE, 2008, p. 1).

Show-Me Standards. “A set of 73 rigorous standards intended to define what students should know and be able to do by the time they graduate from Missouri’s public high schools” (MODESE, 2008, p. 1).

Six Plus One (6 + 1) Trait Writing. The 6 + 1 Trait Writing model is an approach to teaching and assessing writing. 6 + 1 Trait writing was designed to develop a vocabulary to describe what good writing looks like no matter what type of writing it is. The writing program focuses around the six traits of writing with the plus one being the

presentation. The six writing traits consist of ideas, organization, voice, word choice, sentence fluency, and conventions (Culham, 2003).

Student achievement. Student achievement is a student learning gauge on standardized tests and learning indicators (Colbaugh, 2001).

Subgroups. Grouping of students for purposes of disaggregated data on the MAP test. A cell of 30 or more students establishes a subgroup with the exception of IEP and LEP students, which need 50 students to establish a subgroup. The subgroups are the following Asian & Pacific Islander, Free/Reduced Lunch, IEP (Special Education), Hispanic, LEP (Limited English Proficiency), American Indian, African-American, Other/Non-Response, and White (MODESE, 2008, p. 2).

Summary

This study investigated the effectiveness of the 6 + 1 Trait Writing professional development program on writing instruction as measured by the MAP in the area of Communication Arts for students in grades three through eight. The study also explored teacher perceptions of effectiveness of the program on student achievement. The review of the literature presented in Chapter II developed the foundation for writing and writing theories, best practices, research-based strategies geared to improving student achievement in writing and the effectiveness of professional development strategies on teacher perceptions and student achievement.

Chapter II – Review of Literature

Introduction

K-12 education in the United States was constantly evolving as new innovations about teaching and student learning were discovered (Darling–Hammond, 1995). One discovery was how the impact of writing and reading skills for lifelong success must not be underestimated; how well a child can read and write may determine his or her career success along with the ability to be a productive citizen (National Institute of Child Health and Human Development, 2000).

In President George W. Bush’s radio address to the nation on September 8, 2001, he discussed the necessity for every child to be at or above grade level in reading, writing, and math. He set a goal that no child should be left behind.

The ability to read and write is what turns a child into a student. When these skills are not taught, a child has not failed the system but the system has failed the child.

The child is often put on a path to frustration and broken promises. (The White House, 2001)

President Bush signed the No Child Left Behind (NCLB) Act of 2001 into law which was a revision of the Elementary and Secondary Education Act (ESEA) (NCLB, 2002).

Professional development defined in NCLB enables educators to keep abreast of the changing knowledge base, changing student needs, and changing research-based teaching methods (Darling–Hammond, 1995). This is especially true for teaching writing, as ideas about best practice have drastically changed in the last thirty years. Without a simple, defined structure for good writing, it can be difficult for an individual to be confident in his or her writing ability (Smith, 2003). Smith stated that 6 + 1 Trait Writing

was a reliable reference to guide a writer through the demanding task of writing well, as well as improving his or her skills and confidence as a writer. The 6 + 1 Trait Writing model was an effective tool to assess students' writing and to scaffold students' writing skills in a systematic manner (Smith, 2003).

This chapter reviewed literature relevant to this research study. Sections of literature addressed include (a) student achievement, (b) learning, (c) history of writing instruction, (d) writing conventions, (e) writing instruction challenges, (f) 6 +1 Trait Writing, and (g) professional development.

Student Achievement

Over time, student assessment and achievement have drastically changed throughout the United States (Darling-Hammond & Wise, 1985). Darling-Hammond and Wise found that before state-mandated tests that were based on state standards, most schools used national achievement tests such as the ACT, which were developed to compare the student achievement and college readiness throughout the nation. The following trends in testing and legislation put in place to improve student performance since the 1980s, have built into the current legislation known as NCLB.

The Congressional Budget Office found that American students' academic performance declined during the 1960s and 1970s and for the first time started falling behind students in other countries. The government and school districts saw increased public concern to improve the public education system (Congress of the United States Congressional Budget Office, 1987). Test scores from nationally used standardized tests were used to stir this debate. Inconsistent student achievement results during this time period caused major shifts in the federal government's role in education. Change was

implemented with the adoption of the Economic Opportunity Act of 1964. This act created Head Start, a school readiness program that provided low-income children education, health, nutrition, and parent involvement services. The second big change happened with the passing of the Civil Rights Act of 1964. Social inequalities were identified and used to distribute federal education dollars to school districts (Berends, 2004).

Keith and Girling (1991) stated that the nation's educational efforts focused on the reestablishment of the United States as the top educating nation. The National Commission on Excellence in Education's (1983) report garnered national exposure when the *A Nation at Risk* findings indicated, "The educational foundations of our society are presently being eroded by a rising tide of mediocrity that threatens our very future as a Nation and a people" (p. 5). Nystrand (1992) determined that the report recommended more strenuous curriculum and higher expectations for teachers and students, which made education reform the number one national issue.

The next two decades saw individual states try to improve instruction by joining the standards movement. During the standards movement, the Outstanding Schools Act of 1993 was passed which developed the Missouri Assessment Program (MAP). The standards for assessment from the National Assessment Governing Board were used by Missouri education leaders to develop the MAP. These standards were also used to develop the Show-Me Standards, which outlined what skills students in Missouri should know and be able to demonstrate upon graduating from high school. The MAP was developed to measure student achievement (Missouri Department of Elementary and Secondary Education, 2000).

On March 31, 1994, the Goals 2000: Educate America Act (P.L. 103-227) was signed into law. The Act provided instructional resources to school districts so all students would have equal opportunity reach their maximum learning potential. Goals 2000 focused on raising expectations of students. If schools set higher expectations then students will work harder to reach those expectations. The act established a framework for developing high academic standards, a means to measure student progress, and provided the support system needed for students to attain the standards. Goals 2000 incorporated the six original education goals of student readiness for school: student graduation, academic achievement, leadership in science and math to develop achievement initiatives, adult literacy improvement, and safe and drug-free schools while adding two new goals that set parameters on teacher professional development and encouraged parental participation (Goals 2000, 1994).

President Bush signed No Child Left Behind (NCLB) in January, 2002. The act reauthorized the Elementary and Secondary Education Act (ESEA) and included the most significant changes in school accountability in nearly 40 years. NCLB is based on the goal that all students will be proficient in reading, writing, and math by the year 2014. Accountability was used by many educators to describe the NCLB Act. The challenge was for school districts across the United States to put in place highly effective professional development and systems to meet the NCLB expectations.

By 2006, Missouri developed new, annual tests in Communication Arts, math, and science for grades three through eight, ten and eleven to gauge students' academic achievement. NCLB requires all teachers to be "highly qualified" to teach math, science, and Communication Arts and emphasized the importance of improving parental

communication (MODESE, 2004). President Bush believed that this landmark piece of legislation "would ensure that no child in America was left behind through historic education reforms based on real accountability, unprecedented flexibility for states and school districts, greater local control, more options for parents, and more funding for what works" (MODESE, 2008, p. 1).

Learning

Students' academic success has been the ultimate goal of teachers, but in recent years student learning has been the primary focus (Brown, 2003). Brown determined that teachers believed that if students had good grades then they must be learning. However, student learning is much more complicated than just academic success. The Mid-Continent Regional Education Laboratory (McREL) and the American Psychological Association (APA) teamed up to form the APA Presidential Task Force on Psychology in Education in 1990. The two functions of this task force were as follows:

- (1) determine ways in which the psychological knowledge base, related to learning, motivation, and individual differences could contribute directly to improvements in the quality of student achievement and
- (2) provide guidance for the design of educational systems that would best support individual student learning and achievement. (McCombs & Whisler, 1997, p. 17)

The task force found that educators were inspired to increase emphasis on high standards, improve instructional strategies, and revamp assessment techniques (McCombs & Whisler).

Technical and organizational changes occurred because of this emphasis to enable students to reach higher levels of performance (McCombs & Whisler, 1997). However,

educators and researchers alike overlooked the effect of social changes on student academic achievement. As a result, school districts were not set up to offer support for the diverse needs of various students (McCombs & Whisler).

The APA Learner-Centered Psychological Principles was a framework set up to improve the educational experience of all learners (Alexander & Murphy, 1998). The purpose of the learner-centered principles called for school districts to meet all students' needs by offering "a focus on the individual learner as well as an understanding of the learning process and the essential knowledge and skills to be learned" (McCombs & Whisler, 1997, p. 20). The 6 + 1 Trait Writing program accomplishes this goal by tailoring to the individual learning and writing needs of students which the APA identified (Culham, 2003).

There are several ways for students to master the content. Students' choice and opportunities to interact with students of various abilities should generate more learning at the core of the learner-centered classroom practices with 6 + 1 Trait Writing. Teachers should be facilitators of instruction that hold high expectations for students while respecting the opinions, ideas, and viewpoints of all. Good instructional methods and teaching styles must make learning relevant for all students. Teachers need to answer the question of why the students need to learn the material before they present it. Higher level thinking skills and increased depth of knowledge are highlighted to encourage students to become more responsible for their own learning (Alexander & Murphy, 1998; McCombs & Whisler, 1997).

Student collaboration will help each other in constructing meaning of the topic which is used in the peer editing process of writing (Bruffee, 1999; Paul & Marfo, 2001;

APA, 1997). Through a collaborative learning environment, students create knowledge and meaning together. McCombs and Whisler (1997) described practice of enhancing learning by bridging learning to previous learning experiences of individual students. Lessons using 6 + 1 Trait Writing must be taught so that the information will relate to the students' needs and unique backgrounds while respecting diversity and building relationships.

History of Writing Instruction

The ability to write is the core of literacy and a skill that all children need to be successful in school (Strech, 1994). Good writers tend to do well in reading (Strickland, 1991) and this is a direct carry over into other subjects such as mathematics, social studies, and science, which means becoming a good writer will give the student the tools necessary to be a good learner in a variety of subjects (Shanahan, 2004). Becoming a good writer goes beyond simply understanding the mechanics of grammar, syntax and vocabulary, as it requires the ability to organize thoughts, present them in a convincing argument, and be creative (National Writing Project, 2003).

The National Writing Project (2003) stated that writing is a skill of increasing importance.

Writing is the gateway to success in school, helping students learn to read, to solve problems, and to understand concepts in every part of the curriculum.

Writing is the process by which we learn how to convey our ideas, to use our powers of observation, and to persuade others about our viewpoints. If writing occurred in every classroom every day, student achievement across content areas would reach new heights for all. (National Writing Project, 2003, p. 1)

The focus and teaching of writing has changed drastically throughout history. In the 1870s, writing was taught as ancillary to speaking, which resulted in formal instruction in handwriting and the mechanical process of transcribing information (Russell, 1991). Harris and Graham (1996) stated that the teaching of writing has been substantially revolutionized since the 1970s. Prior to that time frame, writing instruction focused on mechanics of grammar and punctuation where now the focus is on helping students gain insight into the writer's craft. The writing process models emerged in the 1970s in which children are taught to plan, draft, revise, edit, and publish compositions in various genres. Effective writing programs involve the complete writing process. As stated by Zemelman, Daniels, and Hyde (2005),

Teachers can help children recognize that the process varies between individuals and between writing tasks. However, just as with other crafts, not all pieces are worth carrying through all stages, and children can learn by focusing on just one or two stages for a given piece of writing. If they revise and edit just their best pieces, the work will be meaningful and likely to reflect real effort. (p. 88)

Writing Conventions

Sputnik's launch in 1957 was the seed that eventually sprouted into the Internet (Zakon, 2005). The Internet has turned into a growing number of writing opportunities for students through the use of email, instant messaging, and blogs. Society has changed the way people communicate with each other which has created a new language for students. The problems associated with writing have grown due to the ever-increasing popularity of this type of communication, which has resulted in grammatical ignorance and indifference (Truss, 2003).

Proponents of the writing process movement in the 1970's and 1980's were afraid that students would not write if they were forced to follow rules of grammar, spelling, and punctuation so they decided to diminish the standing of standard conventions and focus instead on what students wanted to say (Smith, 2000). Teachers focused on editing and revision only at the end of the process which meant if students simply took the time to improve a rough draft anyone could be a good writer (Sams, 2003). Teachers determined that direct grammar instruction had to be eliminated because students just needed practice in writing and their knowledge of grammar would shine through eventually (Bloodgood, 2002).

Boyd (2005) determined that what proponents of the writing process movement failed to realize was that students were practicing writing incorrectly. They were writing with their friends daily, which created a new form of communication. By following this practice without the necessary background knowledge of their language, student have been expected to switch back and forth between social writing and academic writing and know when and how to apply the conventions, let alone apply them in both writing situations (Hagemann, 2003).

Furthermore, many contemporary students do not write as articulately or as eloquently as students a generation ago (Stone, 1991). According to the 1999 *Nation's Report Card on Writing* issued by the National Assessment of Educational Progress, most students scored at the basic level of writing achievement. Approximately one-quarter of those tested reached the proficient level, while only 1% of students performed at the level labeled advanced (Boss, 2002).

In 2003, the ACT National Curriculum Survey discovered that half of college freshman had to take at least one remedial course in college, and of those students, four out of ten took a remedial writing course. This could be due to a disconnect between college composition instructors and high school writing teachers. Among the six general writing skills that included sentence structure, writing strategy, organization, punctuation, and style, grammar and usage ranked highest among college instructors. High school teachers ranked grammar and usage lowest with only 69% of those high school teachers covering grammar and usage in class (ACT Newsroom, 2003). This went against what stated standards have said to foster students' knowledge of and ease in using standard written English (ACT Educational Services, 2003).

Good grammar, spelling, and punctuation contribute to the meaning and aid in communication (Hagemann, 2003). They are the link between writers and readers, and without this link, readers would be lost. The link is distorted by students that write via email, instant messaging, or blogs because they show worse usage of standard conventions than those that do not write online (Stone, 2001).

Writing Instruction Challenges

What challenges do teachers report when they use writing in their classrooms? The first challenge in the effectiveness of writing teachers is dependent on their comfort and confidence with their own writing before they can feel a sense of competence with teaching writing (Bratcher & Stroble, 1994). Kihara (2009) stated that the majority of teachers did apply evidence-based practices but did it inconsistently and infrequently. "Most teachers did not believe their college teacher education adequately prepared them

to teach writing. A sizable minority of language arts and social studies teachers indicated that their in-service preparation was also inadequate” (Kihara, 2009, p. 2).

The second challenge was the lack of time for writing instruction in the curriculum (Clanton, 1997). The pressing issue of limited time to teach writing, limited time to devote to professional development, and the burden of responding to students’ work all contributed to many teachers’ avoidance of using writing in their classrooms. Jago (2005) added that this concern was common among teachers from all content areas but especially English teachers. They simply cannot get out from under the never ending, crushing paper load that was routinely experienced by Communication Arts teachers.

The third challenge was reported by Yancey (2009) who stated that teachers historically struggle with writing instruction due to the need for the development of new models for writing. Once the models for writing are developed, then a curriculum that is designed to support the teaching and incorporation of those models are needed. Finally teachers need professional development and support to teach the writing model to students.

Teachers must overcome these challenges and use the research from Peter Elbow, who viewed writing as a way to think and learn. In *Writing Without Teachers* (1973) and “Toward a Phenomenology of Freewriting” (1991), Elbow identifies writing as a social act (p. 120). Elbow describes the importance of a variety of writing and audiences, like writing without sharing or private writing as opposed to writing with sharing or public writing. Sharing public writing, according to Elbow, “teaches the pleasure of getting more voice in writing” and “students are often more willing to read something out loud if they’ve just written quickly than if they’ve worked hard revising it” (p. 121).

Early writing and literacy instruction has always been a focus but was brought into the spotlight with signing into law in 2002 the Elementary and Secondary Education Act, which included the NCLB Act. According to NCLB mandates, all students in all school districts must be proficient in math, writing and reading by 2014. NCLB has changed the writing process to writing on demand which confined creativity and the quality of what was written (Harris & Graham, 1996). Through the enactment of NCLB, the three writing instruction challenges have been magnified.

What is 6 + 1 Trait Writing?

The difference between a well-written work and a poorly written one is often obvious, but it is sometimes difficult to explain why one piece is clearly a better example of good writing (Steineger, 1996, p. 1). The skills necessary for writing well are numerous, and without a simple, defined structure for good writing, it can be difficult to be confident in one's writing ability (Steineger, 1996, p. 1). The 6 + 1 Trait Writing model that was developed by Spandel and Stiggins in 1990 outlines how teachers could teach students "specific criteria for writing" (Spandel, 1997). The model was an effective way to teach students to evaluate their writing and improve their own perception of their writing skills (Isernhagen & Kozisek, 2000). Culham (2003) stated that the 6 + 1 Trait Writing model was an approach to teaching and assessing writing for all grade levels. The 6 + 1 Trait Writing model was designed to develop a vocabulary to describe what good writing looks like no matter what type of writing it is. The writing program focuses around the six traits of writing with the plus one being the presentation. The six writing traits consist of ideas, organization, voice, word choice, sentence fluency, and conventions.

Ideas. Steineger (1996) described ideas as the “heart of the message and the details which make the message vivid and engaging” (p. 6). The ideas are the main message, theme, or content of the writing that collectively with all of the supporting detail, enrich and develop the theme. The student should choose details that are interesting, important, and informative that the reader would not normally predict. Good writers do not give details that the reader should already know like the sky is blue or the road was black. Instead, the writer should include ideas and details that are bold, descriptive, and insightful. Successful writers show readers what was normally overlooked without repeating ideas that have already been covered in depth.

Organization. According to Steineger (1996), organization is “the structure of the piece including a captivating and purposeful lead, strong transitions linking ideas, and a thoughtful conclusion” (p. 7). The ideas in the writing should be organized logically so that the reader can make important conclusions based on the order in which the ideas are presented. “Organizational structure can be developed through comparison-contrast, deductive logic, point-by-point analysis, development of a central theme, chronological history of an event, or any of a dozen other identifiable patterns” (The Traits Organization, 2009, p. 1). If the organization of the paper was strong then it begins meaningfully and creates a sense of anticipation and makes it fulfilling. The flow of the paper should not be interrupted by poorly placed ideas that do not add to the surrounding ideas or the theme of the paper.

Furthermore, the paper’s transitions should clearly demonstrate the relatedness of the ideas that flow to one another (Smith, 2003). The connections are strong which bridge ideas together. The writer should tie up loose ends, bring closure, and answer important

questions while leaving the reader wanting more. In short, the writer should conclude the paper with an explanation of its main points and a closure to restate the driving theme of the paper.

Voice. The voice of the paper is the “personal tone and flavor of the piece; the writer’s way of connecting to the audience; the sound of a real person talking” (Steineger, 1996, p. 7). Culham (2008) defined the voice as “the heart and soul of the writing, the magic, the wit, the feeling, the life and breath” (p. 12). The writer should be aware of the audience of his or her work and then write to the needs of the reader by customizing the text. Smith (2003) stated that if the text is a narrative, the voice should be honest and should tastefully portray their ideas in a manner suited for the audience. Exposition and persuasion should be a testimony to each writer’s commitment to a given topic. Prose should be highlighted with sincerity and passionate language for the topic.

Word choice. Steineger (1996) said that word choice was “rich, colorful, precise language that communicates in a way that moves and enlightens the reader and creates a picture in a reader’s mind” (p. 7).

Strong word choice resulting in imagery, especially sensory, show-me writing, clarifies and expands ideas in descriptive writing. In persuasive writing, purposeful word choice moves the reader to a new vision of ideas. In all modes of writing figurative language such as metaphors, similes, and analogies articulate, enhance, and enrich the content. (The Traits Organization, 2009, p. 2)

Smith (2003) determined that when striking words and phrases are used, then the ideas expressed will be more memorable. Clichés and jargon should be used sparingly but can add to the overall effectiveness of the paper. Strong word choice will draw the reader

in and drive the key points home. Whereas poor word choice can distract the reader and damage the credibility of the writer. Redundancy was another distraction to the reader, which can result in boredom and the loss of the meaning of the paper.

Sentence fluency. Sentence fluency is “the rhythm and flow of the language, the sound of word patterns, the way in which the writing plays to the ear, not just to the eye. How does it sound when read aloud?” (The Traits Organization, 2009, p. 2). The purpose of the writer should be to connect their ideas by building to points sentence by sentence and paragraph by paragraph. Sentence fluency includes the cadence, power, rhythm, and movement of the piece. The way to do this is determine what the sentence will sound like when it is read orally.

The sentence and paragraphs should be free of awkward word patterns that can slow the reader. Smith (2003) said that sentences should vary in length and in grammatical complexity to avoid blandness. The sentence structure should be strong and varied to express the natural sentence breaks of spoken language. If sentence fragments are used, they should be used sparingly and should be simply adding style to the paper. Sentence fluency should ease the reader’s eyes and help maintain the reader’s attention.

Conventions. Steineger (1996) stated that conventions of writing are “the mechanical correctness of the piece; the spelling, grammar and punctuation” (p. 7). Conventions include five elements, which are spelling, punctuation, capitalization, grammar/usage, and paragraphing. The readability of the test was effectively enhanced by the use of strong conventions. Writing that was strong in conventions have been proofread and edited thoroughly. Culham (2008) said that the writer must ask himself

while assessing a piece for convention the following question: “How much work would a copy editor need to do to prepare the piece for publication?” (p. 3).

Conventions are the only trait where the teacher should make accommodations that are grade level specific. Paragraphs should contain four to six sentences and reinforce the organizational structure of the piece of writing. Paragraphing gives the eyes of the audience a rest from the continuous flow of sentences (Smith, 2003). Grammar contributes to the clarity and style of the work but was essential for ease of reading. Punctuation should be accurate and should easily guide readers through the text. Spelling should be correct to keep from slowing the reading process. Teacher expectations of conventions should be based on grade level to only include those skills taught.

Presentation. According to The Trait Organization (2009), the presentation combines both the visual and textual components of writing. The presentation of a piece will make a reader want to read it.

Our ideas, words, and sentences can be vivid and well written but the writing will not be inviting if the guidelines of presentation are followed. Some the guidelines include: balance of white space with visuals and text, graphics, neatness, handwriting, font selection, borders, and overall appearance. Great writers are aware of the need for good presentation, particularly technical writers who must include graphs, maps, and visual instructions along with their text. Presentation was the key to a polished piece ready for publication. (p. 3)

Handwriting was not part of conventions because they are part of presentation.

Conclusion on 6 + 1 Trait Writing. The 6 + 1 Trait Writing method was a reliable reference to guide a writer through the demanding task of writing well as well as

improving his or her skills and confidence as a writer (Isernhagen & Kozisek, 2000). The program included the qualities of good writing and gives techniques of how to include the key qualities of the 6 + 1 Trait Writing method. Smith (2003) stated that this model has been an effective tool that teachers have used not only to assess student writing but also to scaffold student's writing skills in a systematic manner.

James, Abbott, and Greenwood (2001) concluded the 6 + 1 Trait Writing program allowed students of various ability levels the flexibility to work at their own pace. Researchers demonstrated that 6 + 1 Trait Writing improved student achievement in the areas of conventions and main ideas (Adams et al. 1996). Teachers that routinely assessed writing through the use of the 6 + 1 Trait Writing program produced higher-achieving students (Bangert-Droiw, Kulik, & Kulik, 1991).

Professional Development

Teachers reported a growing need for professional development to help them to meet student needs as it pertains to high quality writing skills (National Center of Educational Statistics, 2001). NCLB (2002) required school districts to use high quality professional development to enable educators to get all students to be proficient in reading, writing, and math.

Desimone, et al. (2002) stated that professional development focuses on training to enhance integration of these practices in teachers' daily lessons. However, building a coordinated and consistent approach to professional development is lacking in most schools (Desimone, et al. 2002). To promote real change in teachers' strategies and instruction, ongoing professional development must occur (Slavit, Sawyer, & Curley, 2003).

The Outstanding Schools Act of 1993 (SB380) required that every school district in the United States allocate one percent of their general revenue from the foundation formula be set aside for teacher professional development. School districts are required to spend 75 % of those funds during that fiscal year on training approved so the district can meet the goals in the district's school improvement plan. The remaining 25 % can be carried over to the next year but must be used to meet the improvement plan (MODESE, 2004).

Professional development moneys typically are spent on topic-based workshops and conferences that teachers go to individually for one or two days. The quality of this type of professional development opportunities are a concern. Non-interactive professional development lacks the follow up support to adequately prepare teachers for the classroom (Mouza, 2002/2003). Many times this type of professional development was expensive with little or no long-term effect on student achievement. What type(s) of professional development will have a long lasting effect on student success will be addressed by answering the following questions:

1. How does the building of school culture affect professional development?
2. Can keeping professional development simple work?
3. How does technology affect professional development?

How does the building of school culture affect professional development? In an article, Brooks-Young (2007) pointed out that the only truly effective professional development was implemented into the everyday culture of the school. At Sebastian Elementary School, they collectively worked hard at Professional Learning Communities

that supported each other and gave the necessary follow up to make what they have learned able to be implemented.

Traditional professional development often consists of gathering the clan in a designated location, for a predetermined period of time, in the hope that a few attendees will apply what they have learned. But this professional learning community called LURE (Learn it. Use it. Run with it. Explain it.) has struck a chord with staff . (Brooks-Young, 2007, p. 18)

LURE developed teams that initially received the training and then trained other teams within the district. The initial team that went to a three-day face-to-face training with online help between meetings consisted of two teachers, one administrator, and one information technology staff member. They went through the training so they could serve as experts for the rest of the staff. With continuous support throughout the year, they were able to develop a culture of change (Brooks-Young, 2007). The team approach was successful, because it opened the dialect so that they could support each other through collaboration at a monthly meeting. The goal of team training was to move the entire staff, not just a handful of people forward (Brooks-Young, 2007).

The National Writing Project follows the same model when teaching writing (National Writing Project, 2003). The team approach was used by the North R-I School District to train teachers on the 6 + 1 Trait Writing program. A team of teachers participated in 6 + 1 Trait Writing training and then trained other staff members. They supported each other and gave necessary follow up aid in implementation.

Can keeping professional development simple work? There is growing evidence that keeping professional development straightforward can have a tremendous impact on

the effectiveness. In an article by Baron (2008), he wanted everyone to imagine what it would be like to have a school that used student learning and achievement drive decision making. Imagine what it would be like to have a school that uses small, democratic communities to build knowledge and have successful students. A school that eliminates prejudices of race, class, gender identity, and special abilities will result in being a successful school (Baron, 2008).

Professional development was better at changing teachers' classroom practices if all teachers from the same school, department, or grade participated. "Teachers benefit from relying on one another in developing skills and become active learners" (Desimone, et al. 2002). Lieberman (1995) found that professional development participants should form a collegial network that provides opportunities for observation, practice, and instructional approaches. Teachers' beliefs can be changed through opportunities for teachers to observe the impact of teaching and learning in their colleagues' classrooms (White, Ringstaff, & Kelley, 2002).

Typically, schools send teachers to outside workshops and conferences or they bring in speakers, which have proven to be ineffective and a waste of time and money. Baron (2008) has found a simpler more effective way for students to be successful through teacher growth. He suggested building a small, democratic learning community or team that was facilitated by a team leader who was selected by the school staff or a trusted outsider (p. 56).

The team leaders are trained to get the teachers to build each other's trust and to support each other through sharing. Many times teachers and administrators are not trained or encouraged to share and examine work publicly. They are kept in isolation

teaching their students with the only sharing consisting of either bragging or complaining about students. This is not any easy tradition to break because many times teachers feel they are being judged rather than helped through the discussions. Sharing best practices was the best way for teachers to improve, but it can only be successful through having a strong team leader and a principal who was a facilitative leader (Baron, 2008). The North R-I School District used the curriculum coordinators as team leaders to facilitate discussion groups to identify instructional strategies to more effectively implement 6 + 1 Trait Writing.

Principals need to participate in an administrator learning community just like the teachers are participating in professional learning communities to make change happen (Baron, 2008). The principals need to share and critique each other to find ways to improve student work, effectiveness of implemented practices and to share their challenges. By sharing with each other and then coming back to share and participate in the democratic groups, they can make improvements. Effective professional development can be as simple as developing a community that was open to sharing ideas and showing what works.

How does technology affect professional development? Technology should take the place of traditional professional development storage of materials (Fox, 2007). Most teachers who go through professional activities either on site or at a workshop bring back binders full of papers that are then stored on shelves. The paperwork sits on the shelf collecting dust because it is not very user friendly. There are countless books and handouts for 6 + 1 Trait Writing professional development materials available to teachers. However, computerized resources make searching for topics and ideas very

simple compared to spending time searching through binders of papers and trying to remember the workshop.

“High-quality professional development is not only a mandate of the No Child Left Behind Act, but also a necessity if there is going to be real change in how teachers conduct lessons and collect data” (Fox, 2007, p. 36). The challenge is how educators can access high quality professional development. 6 + 1 Trait Writing can be presented to teachers and used by teachers for student instruction through the use of technology. Most schools have dedicated a significant amount of their budget to purchasing technology but have failed to get all teachers and students to use the new technology (Fryer, 2007). The students know more about technology than the teachers because the students have grown up around it all their lives whereas most educators have had to learn how to use computers and programs while they are trying to teach (Fryer, 2007). To assist this problem, the Internet and textbook companies have 6 + 1 Trait Writing samples readily available to teachers.

The Education Development Center’s Glenn Kleiman (Fox, 2007) identified five key components to effective professional development, which can be implemented easier through technology than traditional paperwork. Fox identified the following components:

1. Fosters a deeper knowledge of subject matter, a greater understanding of learning, and a greater appreciation of students’ needs.
2. Centers around the critical activities of teaching and learning-planning lessons, evaluating student work, developing curriculum, improving classroom practices, and increasing student learning – rather than on abstractions and generalities.

3. Builds on investigations of practice through cases that involve specific problems, questions, analysis, reflection, and substantial professional discourse.
4. Values and cultivates a culture of collegiality, involving knowledge and experience-sharing among educators.
5. Is sustained, intensive, and continuously woven into the everyday fabric of the teaching profession through modeling, coaching, and collaborations. (Fox, 2007, pp. 36-37)

Technology used in districts like Orange County Public Schools and Springfield Public Schools has been integrated by implementing these five components. The districts that only send teachers out to one-time training workshops typically influence about ten percent of their teachers to use the technology to enhance instruction (Fox, 2007). If districts have a continuous ongoing, administration-supported program, the technology or trait will become a part of the daily culture of the school. The use of technology in implementation of the 6 + 1 Trait Writing program enhanced teacher training and student instruction. The North R-I School District teachers were able to share online 6 + 1 Trait Writing samples with their students to improve writing and student achievement.

Conclusion of professional development. Reasons for professional development failure as cited in the literature include: (a) the professional development activities outside of school, (b) the lack of relevant activities to improve teacher instructional practices, (c) attendance in one-time workshops with the lack of follow-up, and (d) teachers not having their needs and concerns met (Fullan, 1991; Miller, 1998, as cited in Mouza 2002/2003).

All of the literature had the same theme, that professional development must be continuous. The research has shown some wordy key components, but falls short as to develop a road map as to how to effectively start and implement good professional development. Although the professional development studies have shown that educators need high quality professional development to meet NCLB and student needs, more must be done to find out what will work for individual districts.

Summary

The literature review provided a background for this mixed-method comparative design study. Student achievement, learning, history of writing instruction, writing conventions, writing instruction challenges, 6 + 1 Trait Writing, and professional development were the areas examined and reviewed to strengthen the study.

Children who enter school disadvantaged in letter, sound, word, and concept knowledge could be taught to read and write well if their teachers consistently implemented a linguistically informed, structured, comprehensive, and content-rich curriculum. Teachers must be knowledgeable and skilled in the areas of ideas, organization, voice, word choice, sentence fluency, conventions and presentation; must use validated tools for assessment and instruction, and must work in supportive contexts that help them sustain intensive effort year after year. Gersten, Vaughn, Deschler, & Schiller (1997) believe teachers need to understand their discipline's knowledge base and work together to learn the various teaching practices for effective integration of these practices into their classrooms. Professional development that enables teachers to apply the training methods to their lesson plans and assignments was vital to improve student writing (Gersten, Vaughn, Deschler, & Schiller).

Chapter III describes the methodology and procedures used to gather and analyze the data in this study. The chapter elaborates on the purpose of the study, research questions to measure the effectiveness of 6 + 1 Trait Writing, participants and their role in the study, data collection safe guards and procedures, and the quantitative and qualitative research is presented.

Chapter III – Methodology

Introduction

According to Nichols, Glass, and Berliner (2006), student achievement has been brought to everyone's attention with the introduction of NCLB legislation. In the past, school districts determined acceptable levels of student achievement. With the enactment of the NCLB legislation, U.S. school districts have to work to ensure that students have the necessary skills to read, write, and calculate in a competitive market (p. 5). This task is easier said than done with the ever-increasing diversity of the student population in the United States. Thirty-five percent of children come to school unprepared to learn due to drug abuse, poverty, child abuse, or family instability (Forsten & Richardson, 1999).

Student diversity is not an excuse according to NCLB mandates, all students in all school districts must be proficient in math, writing, and reading by 2014. For schools that fell short of their AYP goals, NCLB had clear steps for improvement and the consequences associated with not meeting expectations (2001, p. 3). Since the introduction of NCLB, school districts have started more research-based professional development programs or adopted new instructional programs to help teachers acquire skills to meet the diverse needs of students (Chhabra & McCardle, 2004, p. 8).

A common factor in many effective schools was the emphasis on job-embedded professional development programs geared toward research-based teaching strategies to enhance student achievement (Taylor et al. 2003, p. 3). Cutler and Graham (2008) found that school districts identified many writing programs to meet the challenge of improving student success. No matter which writing improvement program was selected, the

program was not enough without research-based professional development to implement these programs (p. 3). Simply identifying the approaches was not enough.

The North R–I School District selected the 6 + 1 Trait Writing program to improve student writing. The determining factor in selecting a writing program was to use one set of vocabulary and one process to write for all grade levels. Culham (2003) described the 6 + 1 Trait Writing model as an approach to teaching and the assessment of writing. 6 + 1 Trait writing was designed to develop a vocabulary to describe what good writing looks like no matter what type of writing it is. The writing program focuses around the six traits of writing, which includes ideas, organization, voice, word choice, sentence fluency, and conventions, plus one being the presentation (p. 10).

This project evaluated the impact of 6 + 1 Trait Writing on student achievement as measured by the Communication Arts MAP test scores. The North R-I School District third through eighth grade MAP test data from 2006-2007 and 2007-2008 were used as the control group. The data were compared to third through eighth grade data from 2008-2009, which were the scores from students having the benefit of instructional practice influenced by 6 + 1 Trait Writing.

The purpose of this study was to determine the effectiveness of the 6 + 1 Trait Writing and the professional development used to implement the program in terms of student achievement as measured by the third through eighth grade MAP data in the area of Communication Arts.

Research Design

To more fully understand the effect of 6 + 1 Trait Writing on student achievement in the area of Communication Arts in third through eighth grades, a mixed-method

comparative study was conducted. This mixed-methods study utilized Communication Arts MAP data obtained from the DESE website along with a survey and focus group discussions with teachers of the North R-I School District. Triangulation of data (survey questionnaire, Communication Arts MAP data, and roundtable discussions) provided consistent data and enhanced the validity of the data findings.

The quantitative component of the study included the collection of Communication Arts MAP data from the DESE website. The data collected consisted of the MAP test data from all third through eighth grade students of North R-I School District from the 2006-2007, 2007-2008 and 2008-2009 school years. The data from the 2006-2007 and 2007-2008 school years was utilized as a way to determine a baseline of normal changes in test data. The same groups of students were analyzed over the two-year period to determine the maturation of students in relation to the normal change in testing data. Data from the North R-I School District for the 2008-2009 school year was collected and represented the experimental group that received 6 + 1 Trait Writing instruction. The 2008-2009 data was used to show the change in student achievement, as measured by MAP, after one full year of the 6 + 1 Trait Writing instruction to students while the teachers received professional development training to implement the writing program. Before this study began, the testing had already been completed and the results had been published.

The qualitative component of the study included survey results on teacher perceptions of 6 + 1 Trait Writing professional development effectiveness on student achievement. The survey was given to all teachers who received 6 + 1 Trait Writing training during the 2008-2009 school year and gave the MAP test during the 2008-2009

school year ($n=30$). The survey was generated using an on-line survey tool, Survey Monkey. Teachers who were asked to participate in the survey were also invited to be participants in the roundtable discussion which was ($n=30$) facilitated by the North R-I curriculum coordinators to further develop teacher perceptions about the effectiveness of 6 + 1 Trait Writing professional development. The survey and discussions were conducted on a volunteer only basis, and results were anonymous, as the researcher had no way of pairing responses with individuals.

Research Questions

The overarching quantitative research question driving this mixed-method design was: Did the implementation of 6 + 1 Trait Writing increase student achievement in the area of Communication Arts in the third through eighth grades?

The research question guiding the qualitative portion of the study was: Did teachers perceive 6 + 1 Trait Writing to be effective in promoting student achievement?

The subsequent questions were developed to answer the main research question:

1. What were the teachers' perceptions of their roles and responsibilities in the integration of the 6 + 1 Trait Writing strategies in their daily instruction?
2. What were the teachers' perceptions of 6 + 1 Trait Writing on student achievement?
3. How will teacher perceptions affect the success of the 6 + 1 Trait Writing program?
4. How does 6 + 1 Trait Writing professional development enhance the quality of writing instruction leading to student achievement?

Teacher evaluations and roundtable discussion of 6 + 1 Trait Writing training will be used to measure its effectiveness.

Quantitative Research Hypotheses

H_1 : The implementation of 6 + 1 Trait Writing will improve student achievement as evidenced by a statistically significant increase in Communication Arts scores on the MAP test.

H_0 : The implementation of 6 + 1 Trait Writing will not improve student achievement as evidenced by no significant increase in Communication Arts scores on the MAP test.

Qualitative Research

Qualitative research, as defined by Bogdan and Biklen (1998), is “working with data, organizing them, breaking them into manageable units, synthesizing them, searching for patterns, discovering what is important and what is to be learned, and deciding what you will tell others” (p. 158). The qualitative research utilized a survey questionnaire and roundtable discussions. The survey questionnaire (Appendix C) was developed to gain information from participants on the teachers’ degree of integration of 6 + 1 Trait Writing and their perceived effectiveness of the professional development teachers received. The survey questionnaire included three Likert-type items utilizing a five-point scale, “0” showing no agreement to “5” showing always agreed, and four open-ended questions.

After the surveys were submitted, the participating teachers had the opportunity to participate in a roundtable discussion with the curriculum coordinators of the North R-I School District. Before participants could participate, they signed a consent form

(Appendix A) that explained the purpose of the study and reassured the participant their answers would be confidential and used only for this research study.

The roundtable discussion was facilitated by the curriculum coordinators to explain teacher perceptions about the effectiveness of the professional development training on 6 + 1 Trait Writing. The roundtable discussions were recorded and transcribed for analysis purposes. The roundtable discussions were based on a voluntary basis only.

Participants

The quantitative participants in this mixed-method study were third through eighth grade students from the North R-I School District. The study took place within the North R-I elementary school building and middle school building. MAP data was analyzed from the 2007, 2008 and 2009 testing cycles. To have been selected to participate in this study, North R-I students received 6 + 1 Trait Writing instruction and participated in the MAP during the 2007, 2008 and 2009 testing years. The data used were Communication Arts MAP test data obtained from the Department of Elementary and Secondary Education website.

North R-I teachers also participated in this study. Teacher participants provided data for the qualitative portion of the study. Teachers who taught third through eighth grade students and received 6 + 1 Trait Writing professional development were selected to participate in the qualitative portion of the study. These educators must have given the MAP test during the 2006-2007, 2007-2008 and 2008-2009 school years and received 6 + 1 Trait Writing professional development during the 2008-2009 school. This study utilized Survey Monkey, an on-line survey tool, to gauge teacher perceived effectiveness of the 6 + 1 Trait Writing professional development component on student achievement.

These same teachers were also asked to participate in a roundtable discussion to further develop perceptions of the 6 + 1 Trait Writing professional development program.

External Validity

This study compared the Communication Arts MAP data third through eighth graders from the North R-I School District and third through eighth graders from the Missouri state averages as published on the Missouri Department of Elementary and Secondary Education website over the period of three years. Data collected from the 2006-2007 and 2007-2008 school years served as maturation data and the control group. Scores from the North R-I School District during the 2008-2009 year served as the experimental group. North R-I students participating in the experimental group received instruction from teachers who participated in 6 + 1 Trait Writing professional development during the 2008-2009 school year.

Instrumentation

The instruments used during this research study were the MAP test data and the electronic survey. MAP was a testing program administered annually to elementary, middle, and high school students in the state of Missouri to measure program effectiveness and to comply with federal regulations outlined in NCLB. The MAP assessment was given in the spring of each year to third through eighth grade students in Communication Arts, math, and science. The other instrument was an electronic survey created and administered through Survey Monkey.

Dependability of Scale Scores

Score dependability could be quantified as a number ranging from 0 to 1; the higher the coefficient, the more dependable the score. The coefficient of the

Communication Arts test in grade three was 0.913. All coefficients were high and indicated confidence in MAP scale scores (MODESE, 2008, p. 4).

Dependability of Scores from Open-Ended Items

DESE placed the focus on the overall reliability of a given MAP assessment score. They examined the dependability of the scores derived from the subset of items that were evaluated by open-ended response questions and performance events. Consistency was affected when constructed response items could not be evaluated electronically. What was lost in reliability, DESE believed was gained through the use of “real life questions rather than simply using multiple-choice items” (MODESE, 2008, p. 5).

A process called “adjacent agreement” was used to determine the dependability of open-ended item scores. This process measures the percent of cases for which two readers assigned scores that were adjacent to (within one point of) one another. Training the MAP test readers was the key to having assessments consistently scored since multiple readers were being used. While using the adjacent agreement as the baseline for defining reliability, percents of agreement were much higher; most of these scores were consistently above 95 percent (MODESE, 2008, p. 5).

Research Design Procedure

Consent was obtained from the North R-I School District (Appendix A) before gathering data. Permission was not needed to obtain MAP data from the Missouri state averages because it was made publicly available on the DESE website as well. Also, Missouri state data was utilized only as a comparison and did not change the study components. All participants’ identities were kept confidential, with only the grade level

of child and identity of the teacher being known. The MAP test was given in the spring of each school year in grades three through eight.

After all scoring was completed by DESE the data was sent back to the North R-I School District where it was distributed to parents and placed in the students' permanent files. Schools received MAP test data categorized by school, grade level, and subgroup. DESE published the data pertaining directly to the North R-I School District and individual school on the DESE website.

To be a participant, students had to have taken the MAP test in 2007, 2008, and 2009 and received writing instruction based on 6 + 1 Trait Writing concepts. Teachers received 6 + 1 Trait Writing professional development during the 2008-2009 school year and administered the MAP test during the 2007, 2008, and 2009 testing cycles.

Once the North R-I School District administration decided to participate in the 6 + 1 Trait Writing study, participating teachers received a letter (Appendix B) identifying the purpose of the study and a survey (Appendix C). The survey was distributed on-line via Survey Monkey. Each teacher had two weeks to complete the survey questionnaire and submit it to the researcher. After completing the survey, all eligible teachers were asked to participate in a roundtable discussion (Appendix D). The discussion was facilitated by the North R-I curriculum coordinators (Appendix D). The purpose of the survey and roundtable discussions was to identify teacher attitudes and perceptions about 6 + 1 Trait Writing implementation, specifically related to teacher perceived effectiveness of the program. The mixed-methods study of the comparison of Communication Arts MAP data scores, teacher surveys, and the roundtable discussions evaluated the overall success of the 6 + 1 Trait Writing program.

Data Analysis

The MAP data obtained from the DESE website were used to complete the quantitative portion of this study. Data was disaggregated by grade level. Schools must meet a proficiency standard each year in order to meet requirements in the NCLB law. The proficient standard percentage changed each year. In 2007, the proficiency standard was 42.90 percent. This percentage meant that in 2007 at least 42.90 percent of all students who participated in the Communication Arts portion of the MAP test needed to be considered proficient or advanced in order to meet Adequate Yearly Progress (AYP). In 2008, this percentage increased to 51.00 percent, and in 2009, the percentage was 59.20. This proficiency standard was used to determine student achievement in this study. The researcher determined the percent of students who were proficient or above, as determined by the MAP test, in each grade level and at each school for the quantitative portion. The researcher used the Goodness of Fit Chi Square test to see if there was statistical significance to the change in MAP scores.

Data was utilized from both North R-I School District and the Missouri state averages from 2007, 2008 and 2009 in order to determine the natural rate of maturation for the MAP test. The rate of maturation was used to determine if students naturally score higher or lower on the MAP test because of their increased knowledge and skills as they progress through school. The researcher calculated the correlation coefficient between the North R-I School District and the Missouri state average scores to determine if there was a natural rate of maturation for the MAP test.

The roundtable discussion was conducted in person by the North R-I curriculum coordinators. The discussion data was recorded, transcribed, and analyzed to identify

practices of 6 + 1 Trait Writing usage in the teachers' classrooms. The survey portion of the study was analyzed by identifying themes within teacher responses. Strauss and Corbin (as cited in Hoepfl, 1997) determined that qualitative research can be used to get a better understanding about any problem. The use of qualitative research enables a more in-depth look at a problem while developing a descriptive dialogue about the participants' experiences and perceptions (Creswell, 1994).

In this mixed-method research design, the quantitative and qualitative methods were used to study 6 + 1 Trait Writing and its effectiveness on student achievement. The data was analyzed together in order to combine the results and interpret them. Triangulation was achieved by also utilizing survey results and the roundtable discussions to determine future outcomes from using 6 + 1 Trait Writing instruction. The qualitative data helped the researcher determine teacher cause on student achievement as measured by the MAP and its relationship with the 6 + 1 Trait Writing professional development.

Summary

Since the enactment of NCLB, schools have focused on struggling writers and have utilized proven research-based strategies to improve the achievement of writing for all students. Although many writing models were used for years and had well-developed teaching materials, training and professional development components, teachers still needed to have more job-embedded and specific on-site training to develop good writers. "Teachers learn best through an ongoing professional development model. ...By immersing teachers in a culture of ongoing learning, the likelihood of implementing new ideas increases" (Fischer, 2003, p. 6). The 6 + 1 Trait Writing program is one such model.

This study evaluated the effectiveness of 6 + 1 Trait Writing professional development on student achievement by using a mixed-methods design. The study focused on the teachers' knowledge and skill level from received professional development provided and how consistently the teachers implemented the writing program. The presentations of results from the quantitative and qualitative research are presented in Chapter IV.

Chapter IV – Results

Introduction

The No Child Left Behind Act (NCLB, 2001) was signed into law in 2002 which established the most significant changes in federal law affecting education. NCLB is a federal government mandate that set accountability benchmarks for all schools. It focuses on closing the achievement gap and getting 100 percent of public school students to be proficient in reading, writing, and math by the year 2014.

Accountability is used by educators to describe the NCLB Act. Accountability is measured by each state using a testing method the state has in place. Student writing proficiency is one area that is measured each year in NCLB. The state of Missouri uses MAP testing to measure student proficiency in the areas of reading, writing, and math (MODESE, 2000). The challenge facing the North R-I School District was to improve student writing. Cutler and Graham (2008) stated that many writing programs meet the challenge of improving student success. However, the writing improvement programs were not enough without research-based professional development to implement these programs. Simply identifying the approaches was not enough. This study looked at the North R-I School District's student performance and teacher perceptions while implementing the 6 + 1 Trait Writing program.

The 6 + 1 Trait Writing program was evaluated for its effectiveness in increasing student achievement in the area of Communication Arts for grades three through eight in the North R-I School District. Communication Arts MAP data from North R-I School District was analyzed. Data was obtained for the 2007, 2008, and 2009 testing years for the quantitative portion of the study. North R-I teachers participated in an on-line survey

and roundtable discussions for the researcher to better understand teacher perceptions of the 6 +1 Trait Writing professional development. The hypothesis of this study posed that students who were taught writing based on the research-based instructional strategies presented in 6 + 1 Trait Writing would have MAP scores that were significantly higher than students that did not use 6 + 1 Trait Writing.

Quantitative Results

The hypothesis for this study was tested using the Chi-Square Goodness of Fit test and by testing the correlation coefficient. Chi-Square Goodness of Fit test was used since the data being analyzed was reported in categories (Bluman, 2008, p. 565). The Chi-Square Goodness of Fit test is based on a comparison between expected frequencies and actual frequencies of categorical MAP data. Communication Arts MAP test data was obtained from grades third, fourth, fifth, sixth, seventh, and eighth grades from North R-I School District and the Missouri state averages. MAP data are presented by combining the percentage of students in each grade level in the proficient and advanced categories. The researcher utilized the Chi-Square Goodness of Fit test to determine if there were significant differences in the expected frequencies and the actual frequencies. The data were analyzed to compare the expected and observed frequencies between 2007, 2008, and 2009 categorical MAP data. The 2009 data were used to determine if the 6 + 1 Trait Writing program made significant improvement to the North R-I School District Communication Arts MAP test scores.

The correlation coefficient computed from the North R-I School District and the Missouri state averages data measures the maturation of the MAP test (Bluman, 2008, p. 529). The researcher used the correlation coefficient to determine if there was a

relationship between the North R-I School District MAP scores and the Missouri state average MAP test scores. MAP data are presented by combining the percentage of students in each grade level in the proficient and advanced categories. The data were analyzed to determine maturation of the MAP test from 2007, 2008, and 2009.

Interpreting the Data

The purpose of this study was to determine if the 6 + 1 Trait Writing program caused a statistically significant increase in student achievement in the area of Communication Arts. The hypothesis was to test if there was a statistical difference in student achievement between students who were taught writing based on the 6 + 1 Trait Writing program and those students who were not. The 2009 students were taught using 6 + 1 Trait Writing, and the 2007 and 2008 students were not.

Research Question One

The overarching quantitative research question driving this mixed-method design was: Did the implementation of 6 + 1 Trait Writing increase student achievement in the area of Communication Arts in the third through eighth grades? The following results are based on research question one.

Goodness of Fit Test

The North R-I School District students and teachers were exposed to the 6 + 1 Trait Writing program. The MAP data from 2007 and 2008 was before 6 + 1 Trait Writing was implemented and the 2009 data was one year after implementation. The Goodness of Fit test used an E to represent the expected percentage of students scoring proficient and advanced. O represented the actual percentage of students observed scoring proficient and advanced.

North R-I Third Grade. Hypothesis: The implementation of 6 + 1 Trait Writing will result in an increase in student achievement in the area of Communication Arts for third grade students on the MAP test.

Null Hypothesis: The implementation of 6 + 1 Trait Writing will not result in an increase in student achievement in the area of Communication Arts for third grade students on the MAP test.

In Table 3, data were comprised of the percentage of North R-I School District third grade students who scored in the proficient and advanced categories on the Communication Arts MAP test. The E in this data represented the average percentage of third grade students who scored proficient and advanced on the MAP test during the 2007, 2008, and 2009 testing years. The O in this data represented the actual observed student results during the 2007, 2008, and 2009 testing years.

The degrees of freedom for this study was 2, and the critical value for this study was 5.991. The Chi-Square Goodness of Fit value for the North R-I third grade was 8.5166 which was statistically significant. The data indicate that there was a statistical significant decrease in student achievement in the area of Communication Arts between the 2008 and 2009 testing years.

Table 3

North R-I Third Grade MAP Goodness of Fit Test

	2007	2008	2009	Goodness of Fit Value
O	36.3	41.7	19.2	
E	32.4	32.4	32.4	
$[(O-E)^2]/E$.4694	2.6694	5.3778	
				8.5166*

*Statistically significant since Goodness of Fit value 8.5166 > 5.991 critical value.

North R-I Fourth Grade. Hypothesis: The implementation of 6 + 1 Trait Writing will result in an increase in student achievement in the area of Communication Arts for fourth grade students on the MAP test.

Null Hypothesis: The implementation of 6 + 1 Trait Writing will not result in an increase in student achievement in the area of Communication Arts for fourth grade students on the MAP test.

In Table 4, data were comprised of the percentage of North R-I School District fourth grade students who scored in the proficient and advanced categories on the Communication Arts MAP test. The E in this data represented the average percentage of fourth grade students who scored proficient and advanced on the MAP test during the 2007, 2008, and 2009 testing years. The O in this data represented the actual observed student results during the 2007, 2008, and 2009 testing years.

The degrees of freedom for this study was 2, and the critical value for this study was 5.991. The Chi-Square Goodness of Fit value for the North R-I fourth grade was 4.9074 which was not statistically significant. Since the Chi-Square Goodness of Fit value is less than the critical value, this data indicate that there was a slight decrease in

Communication Arts student achievement for the fourth graders in North R-I from 2008 to 2009, although it was not of statistical significance.

Table 4

North R-I Fourth Grade MAP Goodness of Fit Test

	2007	2008	2009	Goodness of Fit Value
O	27.3	46.2	40.0	
E	37.83	37.83	37.83	
$[(O-E)^2]/E$	2.931	1.8519	.1245	4.9074*

*Not statistically significant since Goodness of Fit value 4.9074 \leq 5.991 critical value.

North R-I Fifth Grade. Hypothesis: The implementation of 6 + 1 Trait Writing will result in an increase in student achievement in the area of Communication Arts for fifth grade students on the MAP test.

Null Hypothesis: The implementation of 6 + 1 Trait Writing will not result in an increase in student achievement in the area of Communication Arts for fifth grade students on the MAP test.

In Table 5, data were comprised of the percentage of North R-I School District fifth grade students who scored in the proficient and advanced categories on the Communication Arts MAP test. The E in this data represented the average percentage of fifth grade students who scored proficient and advanced on the MAP test during the 2007, 2008, and 2009 testing years. The O in this data represented the actual observed student results during the 2007, 2008, and 2009 testing years.

The degrees of freedom for this study was 2, and the critical value for this study was 5.991. The Chi-Square Goodness of Fit value for the North R-I fifth grade was

0.9469 which was not statistically significant. Since the Chi-Square Goodness of Fit value is less than the critical value, this data indicate that there was a slight decrease in Communication Arts student achievement for the fifth graders in North R-I from 2008 to 2009, although it was not of statistical significance.

Table 5

North R-I Fifth Grade MAP Goodness of Fit Test

	2007	2008	2009	Goodness of Fit Value
O	36.9	33.4	29.0	
E	33.1	33.1	33.1	
$[(O-E)^2]/E$.4363	.0027	.5079	
				.9469*

*Not statistically significant since Goodness of Fit value .9469 <= 5.991 critical value.

North R-I Sixth Grade. Hypothesis: The implementation of 6 + 1 Trait Writing will result in an increase in student achievement in the area of Communication Arts for sixth grade students on the MAP test.

Null Hypothesis: The implementation of 6 + 1 Trait Writing will not result in an increase in student achievement in the area of Communication Arts for sixth grade students on the MAP test.

In Table 6, data were comprised of the percentage of North R-I School District sixth grade students who scored in the proficient and advanced categories on the Communication Arts MAP test. The E in this data represented the average percentage of sixth grade students who scored proficient and advanced on the MAP test during the 2007, 2008, and 2009 testing years. The O in this data represented the actual observed student results during the 2007, 2008, and 2009 testing years.

The degrees of freedom for this study was 2, and the critical value for this study was 5.991. The Chi-Square Goodness of Fit value for the North R-I sixth grade was 8.5446 which was statistically significant. The data indicate that there was a statistical significant increase in student achievement in the area of Communication Arts between the 2008 and 2009 testing years.

Table 6

North R-I Sixth Grade MAP Goodness of Fit Test

	2007	2008	2009	Goodness of Fit Value
O	51.1	26.0	45.8	
E	40.967	40.967	40.967	
$[(O-E)^2]/E$	2.5064	5.468	.5702	
				8.5446*

*Statistically significant since Goodness of Fit value 8.5446 > 5.991 critical value.

North R-I Seventh Grade. Hypothesis: The implementation of 6 + 1 Trait Writing will result in an increase in student achievement in the area of Communication Arts for seventh grade students on the MAP test.

Null Hypothesis: The implementation of 6 + 1 Trait Writing will not result in an increase in student achievement in the area of Communication Arts for seventh grade students on the MAP test.

In Table 7, data were comprised of the percentage of North R-I School District seventh grade students who scored in the proficient and advanced categories on the Communication Arts MAP test. The E in this data represented the average percentage of seventh grade students who scored proficient and advanced on the MAP test during the

2007, 2008, and 2009 testing years. The O in this data represented the actual observed student results during the 2007, 2008, and 2009 testing years.

The degrees of freedom for this study was 2, and the critical value for this study was 5.991. The Chi-Square Goodness of Fit value for the North R-I seventh grade was 5.995 which was statistically significant. The data indicate that there was a statistical significant decrease in student achievement in the area of Communication Arts between the 2008 and 2009 testing years.

Table 7

North R-I Seventh Grade MAP Goodness of Fit Test

	2007	2008	2009	Goodness of Fit Value
O	48.0	44.2	27.6	
E	39.93	39.93	39.93	
$[(O-E)^2]/E$	1.631	.4566	3.8074	
				5.995*

*Statistically significant since Goodness of Fit value 5.995 > 5.991 critical value.

North R-I Eighth Grade. Hypothesis: The implementation of 6 + 1 Trait Writing will result in an increase in student achievement in the area of Communication Arts for eighth grade students on the MAP test.

Null Hypothesis: The implementation of 6 + 1 Trait Writing will not result in an increase in student achievement in the area of Communication Arts for eighth grade students on the MAP test.

In Table 8, data were comprised of the percentage of North R-I School District eighth grade students who scored in the proficient and advanced categories on the Communication Arts MAP test. The E in this data represented the average percentage of

eighth grade students who scored proficient and advanced on the MAP test during the 2007, 2008, and 2009 testing years. The O in this data represented the actual observed student results during the 2007, 2008, and 2009 testing years.

The degrees of freedom for this study was 2, and the critical value for this study was 5.991. The Chi-Square Goodness of Fit value for the North R-I eighth grade was 6.1867 which was statistically significant. The data indicate that there was a statistical significant decrease in student achievement in the area of Communication Arts between the 2008 and 2009 testing years.

Table 8

North R-I Eighth Grade MAP Goodness of Fit Test

	2007	2008	2009	Goodness of Fit Value
O	31.0	53.8	41.5	
E	42.1	42.1	42.1	
$[(O-E)^2]/E$	2.9266	3.2515	.0086	
				6.1867*

*Statistically significant since Goodness of Fit value 6.1867 > 5.991 critical value.

Data in Table 9 summarizes the Goodness of Fit Test for North R-I School District MAP scores for grades three through eight. The data presented is the critical value (5.991) of the study and the Goodness of Fit calculation and findings by grade level.

Table 9

North R-I MAP Goodness of Fit Test Summary

Grade Level	Critical Value	Goodness of Fit Value	Findings
3	5.991	8.5166	Statistically significant decrease
4	5.991	4.9074	Not statistically significant
5	5.991	.9469	Not statistically significant
6	5.991	8.5446	Statistically significant increase
7	5.991	5.995	Statistically significant decrease
8	5.991	6.1867	Statistically significant decrease

Correlation Coefficient Test

The correlation coefficient computed from the North R-I School District and the Missouri state averages data measures the maturation of the MAP test. The alpha level used for this test is .05. The correlation coefficient was used to determine if there was a relationship between the North R-I School District MAP scores and the Missouri state average MAP test scores. MAP data is presented by combining the percentage of students in each grade level in the proficient and advanced categories. The data was analyzed to determine maturation of the MAP test from 2007, 2008, and 2009.

North R-I and Missouri Third Grade. Hypothesis: There is a positive relationship between the average scores achieved by North R-I School District third graders and the average scores achieved by Missouri third graders on the Communication Arts MAP when comparing the years 2007 through 2009.

Null Hypothesis: There is not a positive relationship between the average scores achieved by North R-I School District third graders and the average scores achieved by

Missouri third graders on the Communication Arts MAP when comparing the years 2007 through 2009.

Table 10 data consisted of third graders from North R-I School District and the Missouri state average. The range of the correlation coefficient is from -1 to +1. The correlation coefficient for third grade is 0.2256, which results in a mild positive relationship between North R-I School District's third grade students and Missouri's third grade student average.

Because the calculated value of the correlation coefficient is greater than zero, the researcher rejected the null hypothesis and supported the indication of a positive relationship between the compared third grade averages scored on MAP Communications Arts. This may be an indication of similar naturally occurring maturation rates with respect to Communication Arts knowledge measured by the Communication Arts MAP.

Since the researcher rejects the null hypothesis, a t-test was performed that resulted in a t value of 0.2316. The MAP correlation coefficient resulted in a mild positive linear relationship; however, the correlation was found to be not significant due to the t-test.

Table 10

Third Grade Correlation Coefficient of MAP Scores

Year	North R-I School District	Missouri State Average	Correlation Coefficient
2007	36.3	43.6	0.225638*
2008	41.7	40.8	
2009	19.2	41.0	

*Correlation coefficient is insignificant.

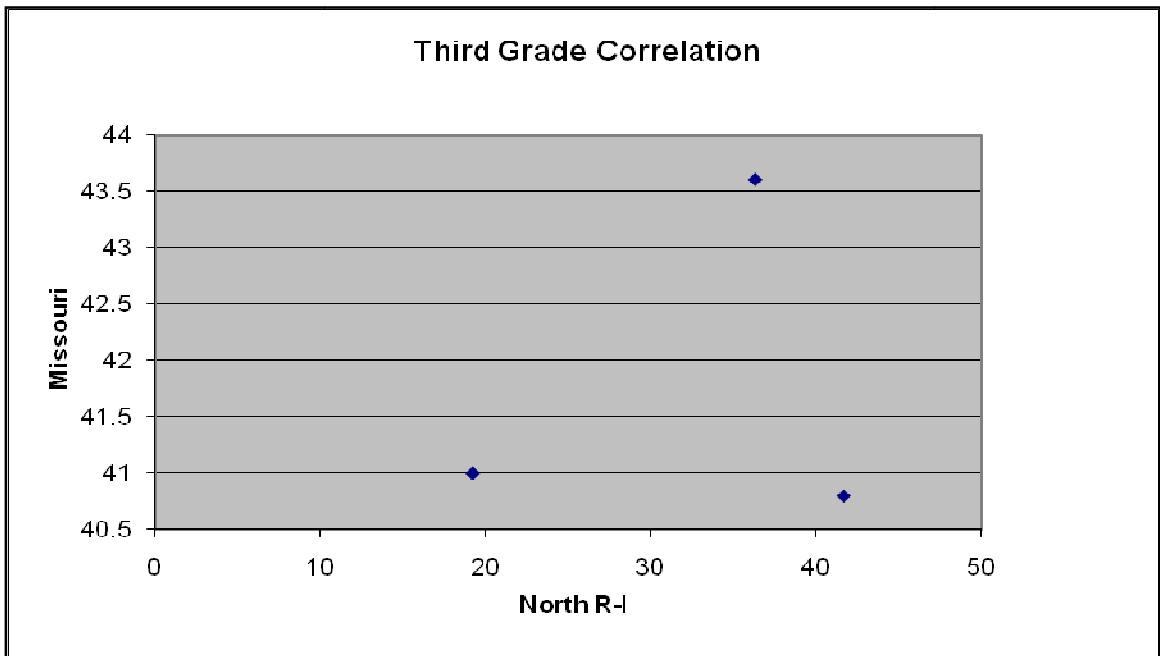


Figure 1. North R-I and Missouri Third Grade

North R-I and Missouri Fourth Grade. Hypothesis: There is a positive relationship between the average scores achieved by North R-I School District third graders and the average scores achieved by Missouri fourth graders on the Communication Arts MAP when comparing the years 2007 through 2009.

Null Hypothesis: There is not a positive relationship between the average scores achieved by North R-I School District third graders and the average scores achieved by Missouri fourth graders on the Communication Arts MAP when comparing the years 2007 through 2009.

Table 11 data consisted of fourth graders from North R-I School District and the Missouri state average. The range of the correlation coefficient is from -1 to +1. The correlation coefficient for fourth grade is -.08492, which results in a mild negative relationship between North R-I School District fourth grade students and the Missouri fourth grade student average. The null hypothesis is not rejected.

Table 11

Fourth Grade Correlation Coefficient of MAP Scores

Year	North R-I School District	Missouri State Average	Correlation Coefficient
2007	27.3	46.0	
2008	46.2	45.6	
2009	40.0	47.0	

-0.08492*

*Correlation coefficient is insignificant.

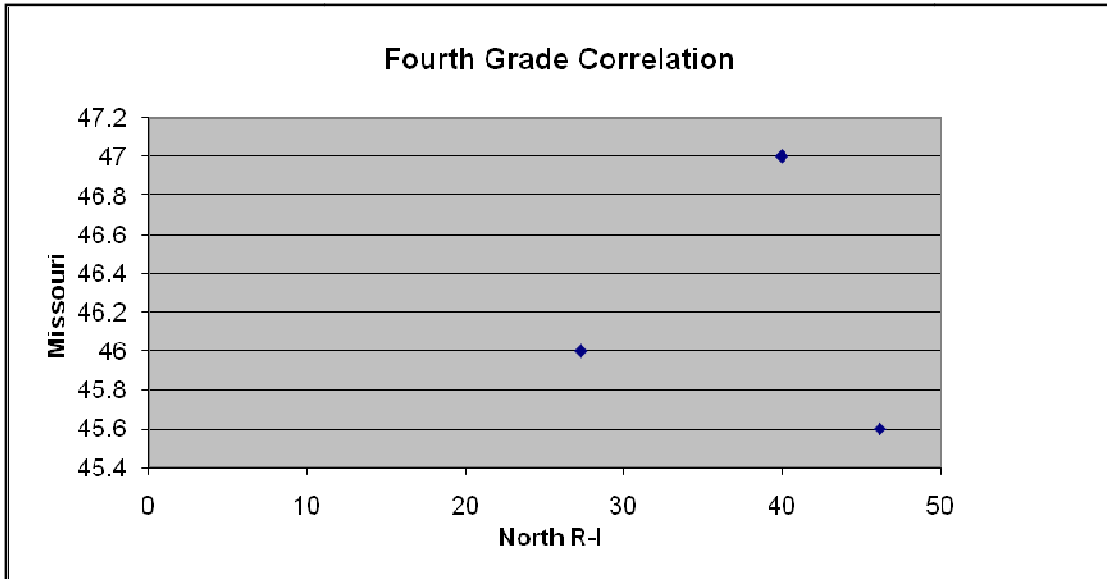


Figure 2. North R-I and Missouri Fourth Grade

North R-I and Missouri Fifth Grade. Hypothesis: There is a positive relationship between the average scores achieved by North R-I School District third graders and the average scores achieved by Missouri fifth graders on the Communication Arts MAP when comparing the years 2007 through 2009.

Null Hypothesis: There is not a positive relationship between the average scores achieved by North R-I School District third graders and the average scores achieved by Missouri fifth graders on the Communication Arts MAP when comparing the years 2007 through 2009.

Table 12 data consisted of fifth graders from North R-I School District and the Missouri state average. The range of the correlation coefficient is from -1 to +1. The correlation coefficient for fifth grade is $-.94176$, which results in a strong negative linear relationship between North R-I School District fifth grade students and the Missouri fifth grade student average. The null hypothesis is not rejected.

Table 12

Fifth Grade Correlation Coefficient of MAP Scores

Year	North R-I School District	Missouri State Average	Correlation Coefficient
2007	36.9	48.6	
2008	33.4	48.7	
2009	29.0	49.4	
			-0.94176*

*Correlation coefficient is significant with a strong negative relationship.

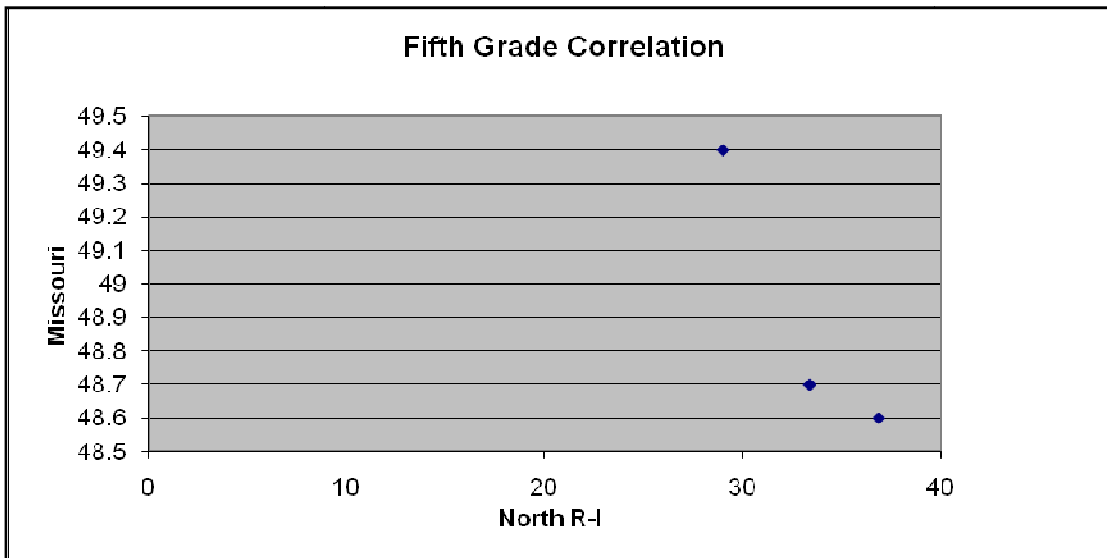


Figure 3. North R-I and Missouri Fifth Grade

North R-I and Missouri Sixth Grade. Hypothesis: There is a positive relationship between the average scores achieved by North R-I School District third graders and the average scores achieved by Missouri sixth graders on the Communication Arts MAP when comparing the years 2007 through 2009.

Null Hypothesis: There is not a positive relationship between the average scores achieved by North R-I School District third graders and the average scores achieved by

Missouri sixth graders on the Communication Arts MAP when comparing the years 2007 through 2009.

Table 13 data consisted of sixth graders from North R-I School District and the Missouri state average. The range of the correlation coefficient is from -1 to +1. The correlation coefficient for sixth grade is -.56498, which results in a negative linear relationship between North R-I School District sixth grade students and the Missouri sixth grade student average. The null hypothesis is not rejected.

Table 13

Sixth Grade Correlation Coefficient of MAP Scores

Year	North R-I School District	Missouri State Average	Correlation Coefficient
2007	51.1	44.4	
2008	26.0	47.6	
2009	45.8	48.1	
			-0.56498*

*Correlation coefficient is significant with a negative relationship.

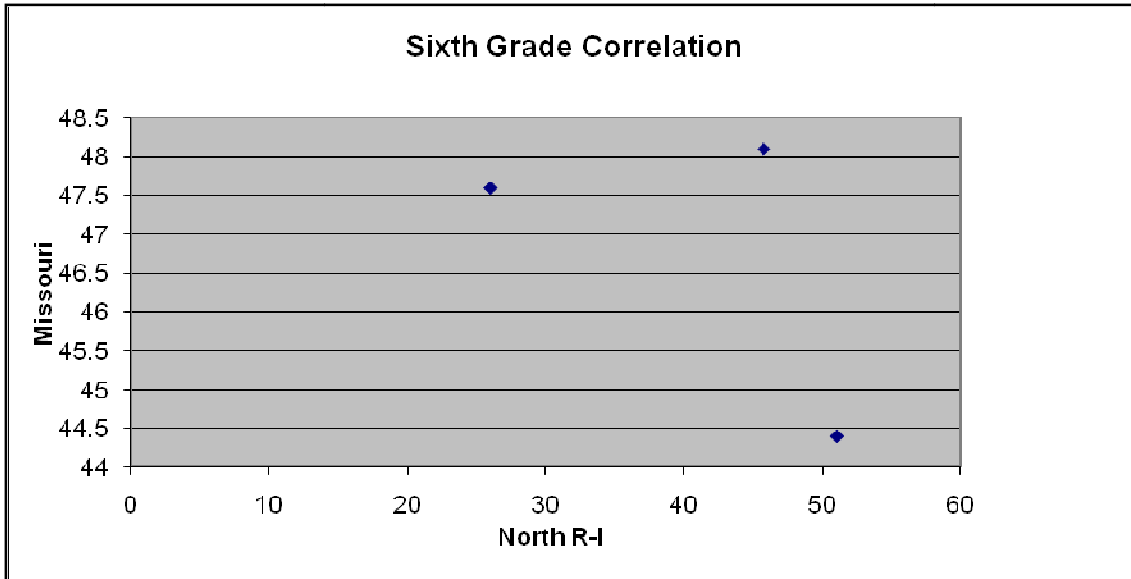


Figure 4. North R-I and Missouri Sixth Grade

North R-I and Missouri Seventh Grade. Hypothesis: There is a positive relationship between the average scores achieved by North R-I School District third graders and the average scores achieved by Missouri seventh graders on the Communication Arts MAP when comparing the years 2007 through 2009.

Null Hypothesis: There is not a positive relationship between the average scores achieved by North R-I School District third graders and the average scores achieved by Missouri seventh graders on the Communication Arts MAP when comparing the years 2007 through 2009.

Table 14 data consisted of seventh graders from North R-I School District and the Missouri state average. The range of the correlation coefficient is from -1 to +1. The correlation coefficient for sixth grade is -0.85543 , which results in a strong negative linear relationship between North R-I School District seventh grade students and the Missouri seventh grade student average. The null hypothesis is not rejected.

Table 14

Seventh Grade Correlation Coefficient of MAP Scores

Year	North R-I School District	Missouri State Average	Correlation Coefficient
2007	48.0	45.6	
2008	44.2	49.3	
2009	27.6	51.1	
			-0.85543*

*Correlation coefficient is significant with a strong negative relationship.

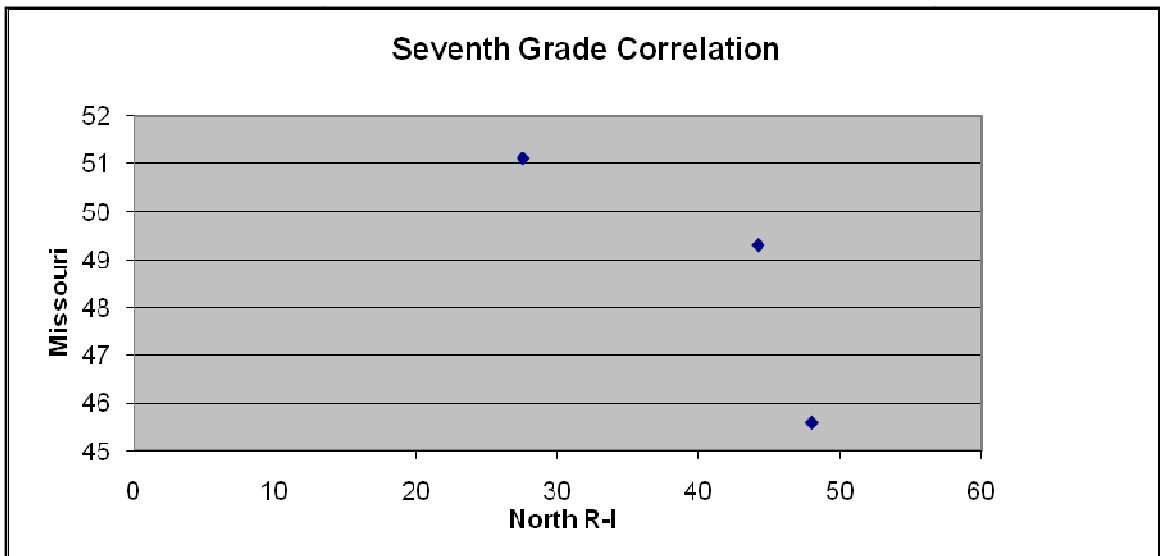


Figure 5. North R-I and Missouri Seventh Grade

North R-I and Missouri Eighth Grade. Hypothesis: There is a positive relationship between the average scores achieved by North R-I School District third graders and the average scores achieved by Missouri eighth graders on the Communication Arts MAP when comparing the years 2007 through 2009.

Null Hypothesis: There is not a positive relationship between the average scores achieved by North R-I School District third graders and the average scores achieved by

Missouri eighth graders on the Communication Arts MAP when comparing the years 2007 through 2009.

Table 15 data consisted of eighth graders from North R-I School District and the Missouri state average. The range of the correlation coefficient is from -1 to +1. The correlation coefficient for fifth grade is 0.70065, which results in a strong positive linear relationship between North R-I School District eighth grade students and the Missouri eighth grade student average.

Because the calculated value of the correlation coefficient is greater than zero, the researcher rejects the null hypothesis and supports the indication of a positive relationship between the compared eighth grade averages scored on MAP Communications Arts. This may be an indication of similar naturally occurring maturation rates with respect to Communication Arts knowledge measured by the Communication Arts MAP.

Since the researcher rejects the null hypothesis, a t-test was performed that resulted in a t value of 0.981. The MAP correlation coefficient resulted in a strong positive linear relationship; however, the correlation was found to be not significant due to the t-test.

Table 15

Eighth Grade Correlation Coefficient of MAP Scores

Year	North R-I School District	Missouri State Average	Correlation Coefficient
2007	31.0	42.5	
2008	53.8	48.4	
2009	41.5	50.2	

0.700645*

*Correlation coefficient is significant with a strong positive relationship.

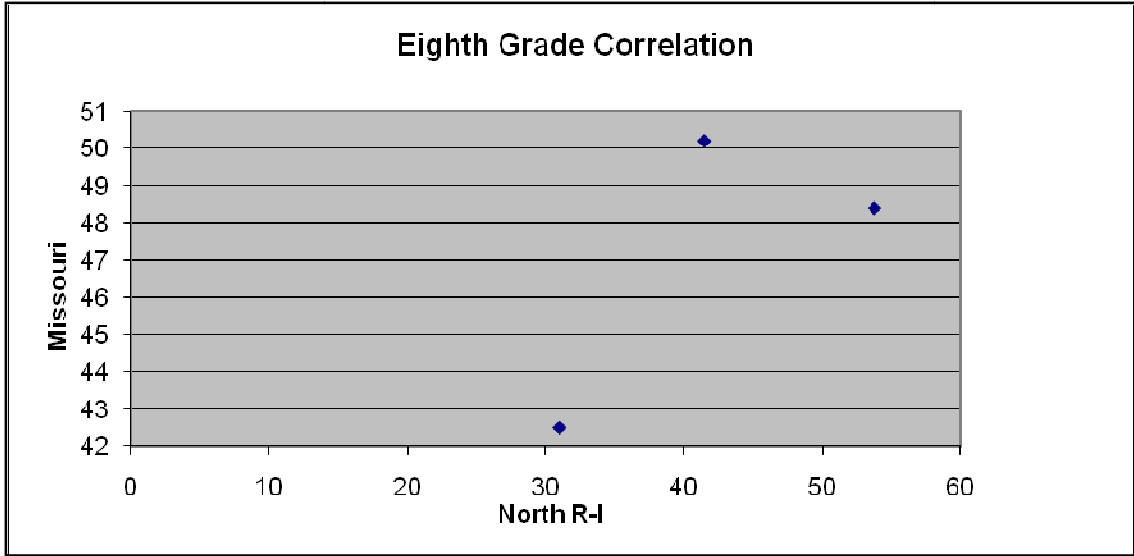


Figure 6. North R-I and Missouri Eighth Grade

Data in Table 16 summarizes the findings from the correlation coefficient of MAP scores for grades three through eight at North R-I School District for this study.

Table 16

North R-I MAP Correlation Coefficient of MAP Scores Summary

Grade Level	Correlation Coefficient	Findings
3	0.225638	Mild positive relationship
4	-0.08492	Mild negative relationship
5	-0.94176	Strong negative linear relationship
6	-0.56498	Negative linear relationship
7	-0.85543	Strong negative linear relationship
8	0.700645	Strong positive linear relationship

Research Question Two

The research question guiding the qualitative portion of the study was: Did teachers perceive 6 + 1 Trait Writing to be effective in promoting student achievement?

The subsequent questions were developed to answer the main research question:

1. What were the teachers' perceptions of their role and responsibility in the integration of the 6 + 1 Trait Writing strategies in their daily instruction?
2. What were the teachers' perceptions of 6 + 1 Trait Writing on student achievement?
3. How will teacher perceptions affect the success of the 6 + 1 Trait Writing program?
4. How does 6 + 1 Trait Writing professional development enhance the quality of writing instruction leading to student achievement?

Survey and roundtable discussion data were used as a way to gauge teacher perception and the effect on student achievement.

North R-I School District Survey Results

The 6 + 1 Trait Writing program was implemented during the 2008-2009 school year in the North R-I School District. All teachers received the imbedded professional development training throughout the school year. For the researcher to gain more data in this study, a survey was sent to all teachers in North R-I who participated in 6 + 1 Trait Writing professional development, taught third through eighth grade, and participated in MAP testing in 2007, 2008, and 2009. Thirty teachers were invited to participate in the survey, and 18 teachers participated. The survey results were used to gather more information about 6 + 1 Trait Writing and teacher perceptions of the program.

The survey (Appendix C) was sent to all teachers using the on-line survey system called Survey Monkey. The survey contained both Likert-type and open-ended responses in order to allow the researcher to gain information on teacher perceptions of the 6 + 1 Trait Writing and its integration into classroom instruction.

The first question in the survey asked teachers to rate the components of 6 + 1 Trait Writing in terms of how helpful or useful each trait was in their daily teaching. The seven components include ideas, sentence fluency, organization, word choice, voice, conventions, and presentation. The teachers' response to ideas was 44.5% felt it was very good or excellent with 44.5% feeling that it was poor or fair. The remaining six components showed that the teachers were split with approximately 33.3% rating the components very good or excellent, 33.3% rating the components good, and 33.3% rating the components poor or fair.

The second question of the survey asked teachers to rate how often they incorporate the 6 + 1 Trait Writing components into their daily lesson plans. Eleven percent of the teachers indicated that they included the seven components into their instruction on a daily basis. Twenty-two percent of the teachers indicated that they integrate the components almost every day. Of the teachers surveyed, 28% of the teachers indicated that they rarely use the components on a daily basis. Every teacher surveyed implemented the 6 + 1 Trait Writing program sometime throughout the school week.

The third question of the survey asked "Has student achievement improved since 6 + 1 Trait Writing was brought to North R-I School District?" Twenty-eight percent of the teachers surveyed indicated that student achievement and student writing improved often or always. Twenty-two percent of the teachers indicated that student writing did not improve since implementing 6 + 1 Trait Writing. The remaining 50% of the teachers felt that student writing improved sometimes or they had no opinion.

Question four focused on how 6 + 1 Trait Writing helps teachers meet the needs of all students. There were two prominent themes from the open ended responses of

question four. The first theme was providing structure for the instructors when teaching a framework for students when writing. “Teachers felt that 6 + 1 Trait Writing provided a framework to base my curriculum and assessment” (LE). Using this model, teachers were provided a framework for writing. “It allows the student to work on their level and expand on their previous knowledge” (JC). The second theme was that 6 + 1 Trait Writing provided a step-by-step process to assess student writing. “When you grade only one trait at a time, it gives the students that struggle with one a chance to excel at another” (CW). Through 6 + 1 Trait Writing peer editing was enhanced. “You can grade on specific traits and edit them as a team” (MM).

The fifth question in the survey asked teachers to identify components and teaching methods that are missing from the 6 + 1 Trait Writing program. The teachers expressed concern that students needed more organization that would help with lengthy research writing. “I think that 6 + 1 doesn’t help with lengthy, in-depth papers that require research and MLA style documentation” (CW). Taking more time to teach each trait was noted. “Needs more organization” (KN). The majority of the teacher responded with recommending no changes. “This is the first writing curriculum that I have used. I love it” (AR).

The sixth question asked teachers to identify how 6 + 1 Trait Writing changed their instructional techniques. “It makes writing easier to introduce and makes it more exciting and entertaining to read” (HB). North R-I teachers felt that the program made teaching writing easier. “It has made it easier for me to share my expectations of what I am looking for in an essay” (JC). The second item teachers identified was how 6 + 1 Trait Writing has developed a framework for writing and evaluating writing that can be used

across the curriculum. “It has provided a more comfortable framework for teaching writing, which tends to be a dreaded subject” (MM). Focusing on one trait at a time, teachers are given the instructional strategies necessary to teach writing. “I have had to break the writing process down into small chunks and grade on specific traits verses total product” (SW).

The final question of the survey asked teachers if they felt that the 6 + 1 Trait Writing professional development was effective. “I believe it will be eventually after teachers have had time to process it and work it into the curriculum more” (MM). The results indicated that 71% of the teachers felt professional development was effective at starting 6 + 1 Trait Writing but it was going to take time to get it fully implemented across the curriculum. “Yes, but I feel that a longer workshop would have benefited us more. I basically have had to teach myself what it is and how to do it” (SW). The data revealed that 29% of the teachers felt that the professional development was not effective. “We needed more time for the core teachers to teach the traits before non-core teachers could include it in their curriculum” (CW). Those teachers believed that they need more individualized instruction for the English teacher before the rest of the teachers were trained. “No, smaller group training would have been more beneficial with more meeting times” (JC).

North R-I School District Roundtable Discussions Results

The North R-I School District roundtable discussions were facilitated by the district’s two curriculum coordinators. Of the 30 teachers invited, 12 actually participated in the two discussions. The two discussion groups were held in the districts’ Title 1 room with six teachers participating in each group along with the two curriculum coordinators.

Each roundtable took place during the normal school day during vertical teaming meeting, and participation was voluntary. Third through seventh grade teachers were represented in the discussions. The purpose of the roundtable discussions was to gain further insight into teacher perceptions of the 6 + 1 Trait Writing program and its impact on student achievement. Teachers participating in the roundtable discussions were asked seven questions (Appendix D). The curriculum coordinators facilitated the conversation, took notes, and tape-recorded the responses.

The discussion on question one focused on what skills from 6 + 1 Trait Writing were most helpful in the teacher's daily classroom instruction. This question examined what positive impact the 6 + 1 Trait Writing program has had on North R-I student writing skills. According to the teachers' discussion, teachers believed that word choice and voice were the most helpful in developing student writing. "Word choice and voice are the best, by putting voice in writing it makes the writers personality show through. They can show their excitement through their voice" (MM). Overall the teachers felt that the 6 + 1 Trait Writing components flowed together very easily. Students could use all the traits to write a complete paper.

Question two centered around what impact the 6 + 1 Trait Writing had on the teachers' daily classroom instruction. "6 + 1 Trait Writing has made me teach writing more rather than just giving a writing prompt. I have to use graphic organizers to teach what it means to have voice and the rest of the traits. We use the thesaurus more and I am better organized in my instruction" (MM). The teachers believed that they have focused more on writing and that they have become better teachers of writing due to the traits. Teachers felt that the traits give them a framework to write from and it has caused them

to teach writing more. “We write more because it is new and I am trying to teach them all of the traits” (JC). The 6 + 1 Trait Writing model has made the teacher more effective in teaching writing.

The third question asked what could be added to the 6 + 1 Trait Writing professional development program to serve the teachers better. The question examined potential growth and improvement areas for the future. The teachers all felt that they needed a handbook that would easily explain the traits and that would give quick examples for them to use in their lesson planning. “A simple handbook on 6 + 1 Trait Writing instead of all of the various textbook resources could be turned over to new teachers to the district to get them started with their students” (AG). The discussion centered on the need for a handbook that could be used by teachers to illustrate 6 + 1 Trait Writing to students and parents. “We need a handbook that is a more uniformed system so everyone is on the same page rather than each of us using a variety of Internet and written text resources” (MM). The development of a handbook will enable all teachers to implement the program consistently in each grade level.

Question four gave the researcher insight as to how the teachers perceived the effectiveness of 6 + 1 Trait Writing. The overall perception of the effectiveness of 6 + 1 Trait Writing was positive. The teachers felt that buy-in to the new program was slow because they struggled to understand all of the traits at first but they now understand it more thoroughly and use it daily. “Teaching writing is easy now with the traits. I can use the terms with their descriptors to explain what they are missing. From a teaching stand point I can tell them they have great ideas, great word choice, but let’s work on this part. It is like having a checklist for good writing” (MM). Teachers believed that 6 + 1 Trait

Writing was more effective in making students better writers than the old power writing system that the district was using.

Question five was developed to gain insight into what may have went wrong in the implementation of the program by asking about some of the barriers that the teacher faced with the 6 + 1 Trait Writing program. The common theme was the break down in the beginning of the professional development training. “I didn’t fully understand it until I took the book home and read it. I taught myself” (SW). Teachers felt that at the beginning there were misconceptions about the level of understanding of the traits. “Everyone was doing different things at first because we didn’t know it as well as we thought we did” (LE). They did not fully understand how to teach the traits or how to use them. As the year progressed, the teachers gained a better grasp on writing using the traits. The teachers felt that the district moved too quickly in dropping the old power writing program and jumping into the 6 + 1 Trait Writing program without making sure that the teachers knew what they were doing.

The sixth question was asked to find out what system needs to be implemented to hold teachers accountable for implementing 6 + 1 Trait Writing consistently across the curriculum. “Kids still don’t know what all the traits are. It will be nice when my sixth graders come to me and know them. I worked hard last year to train them on all the traits to prepare them for the 7th grade” (MM). The discussion revolved around the need for a handbook and more vertical teaming to share student work so all teachers can grade consistently and prepare students for the next grade. “We need to bring student work into vertical teaming so we can grade it together to see if we are all on the same page.

Organization wise, we need to be consistent” (LE). The consistency of the implementation across grade levels is critical to the improvement of student writing.

The final question developed to find out what kind of responsibility the teachers had in terms of 6 + 1 Trait Writing implementation and daily classroom instruction. The researcher was trying to find out if the teachers’ perception of their role in teaching 6 + 1 Trait Writing has changed from the start of the program at the beginning of the 2008-09 school year to the beginning of the 2009-10 school, one year later. The teachers felt that open communication was critical for the success of 6 + 1 Trait Writing and felt that the roundtable discussion helped them learn more about each other’s student expectations. “I think it has helped having a roundtable discussion on 6 + 1 Trait Writing. We need to spend more time sharing because there is not enough hours in the school day to learn this without roundtable” (AG). The teachers believed that if they knew what the teacher of the grade ahead of them was expecting that they would be able to do a better job. “My role is to get them ready for high school for CW. I prepare them to be ready for high school level papers. Sixth grade gets them ready for me” (JC). Collaboration during vertical teaming meetings will make all teachers accountable for improving student writing across all grade levels.

Summary

Chapter IV presented the results of the quantitative and qualitative data collected that examined the effect of 6 + 1 Trait Writing on student achievement in the area of Communication Arts in third through eighth grades. The hypothesis was tested in each grade level for significant differences. The quantitative data revealed that sixth grade was the only grade with a statistically significant increase. Grades four and five showed no

statistical significant increase or decrease. Grades three, seven, and eight revealed a statistically significant decrease in Communication Arts MAP test performance.

This mixed-method study utilized Communication Arts MAP data obtained from the DESE website along with a survey and roundtable discussions with teachers of the North R-I School District. Triangulation of data (survey questionnaire, Communication Arts MAP data, and roundtable discussions) provided consistent data and enhanced the validity of the research findings. The quantitative research was used to determine if the 6 + 1 Trait Writing program improved student writing while the qualitative data were utilized to help the researcher better understand the reasons why the program may not have been successful in the North R-I School District.

From the qualitative data, teachers' perceptions on the effectiveness of 6 + 1 Trait writing in promoting student achievement were investigated. Two themes emerged from the findings of the qualitative research. The first theme, providing structure for teachers to teach and evaluate writing through a step-by-step process, supported the findings for the hypothesis. The second theme, providing consistent professional development and accountability of teachers, enhanced the study's findings.

Chapter V summarizes of the data findings and presents a discussion of those findings. Recommendations for the future use of 6 + 1 Trait Writing and future studies will be discussed.

Chapter V – Conclusions and Recommendations

Introduction

A Nation at Risk, Show-Me Standards, and No Child Left Behind (NCLB) have influenced student achievement by putting the focus on educational deficiencies (Berends, 2004; Missouri Department of Elementary and Secondary Education, 2000; NCLB, 2002). NCLB is the only federally mandated legislation that set up a public school accountability system that focuses on the integration of research in the areas of math, reading, and writing strategies (NCLB, 2002).

In accordance with NCLB regulations, school districts mandated the use of research-based programs to support curriculum revisions in reading, writing, and mathematics (NCLB, 2002). For a program to be effective in terms of writing achievement, the instructional strategies must be research-based and must allow for teachers to receive job-imbedded professional development (NAEP, 2007). Cutler and Graham (2008) stated that school districts identified many writing programs that would meet the challenges of improving student achievement. However, the writing improvement programs are not enough with just research-based professional development. Teachers' perception of the effectiveness of the program and how thoroughly teachers use the program can have a great impact on student performance (2008, p. 2).

This study explored the effects of the 6 + 1 Trait Writing program on student achievement and the teacher perceived effectiveness of the 6 + 1 Trait Writing program on student achievement. The data added insight in how the 6 + 1 Trait Writing program and teacher perceptions influence student academic success.

Overview of the Study

This study was established to determine the effectiveness of the 6 + 1 Trait Writing program and the professional development used to implement the program in terms of student achievement as measured by third through eighth grade Missouri Assessment Program (MAP) data in the area of Communication Arts. The study also investigated teacher perceptions of the effectiveness of the 6 + 1 Trait Writing program on student achievement. Data were gathered from Communication Arts MAP data, a survey questionnaire, and roundtable discussions consisting of teachers whom had given the MAP test and had been trained using the 6 + 1 Trait Writing program.

Research Questions

The main quantitative research question driving this mixed-method design was: Did the implementation of 6 + 1 Trait Writing increase student achievement in the area of Communication Arts in the third through eighth grades?

The research question guiding the qualitative portion of the study was: Did teachers perceive 6 + 1 Trait Writing to be effective in promoting student achievement?

The subsequent questions were developed to answer the main research question:

1. What were the teachers' perceptions of their role and responsibility in the integration of the 6 + 1 Trait Writing strategies in their daily instruction?
2. What were the teachers' perceptions of 6 + 1 Trait Writing on student achievement?
3. How will teacher perceptions affect the success of the 6 + 1 Trait Writing program?

4. How does 6 + 1 Trait Writing professional development enhance the quality of writing instruction leading to student achievement?

Summary of Findings

Research Question One

The quantitative research asked if the 6 + 1 Trait Writing program increased student achievement. The hypothesis was tested through the quantitative data analysis. The Chi-Square Goodness of Fit test was used to determine if a statistical difference existed in the Communication Arts MAP scores from the 2007 and 2008 pre-6 + 1 Trait Writing instructed students to the 2009 post 6 + 1 Trait Writing instructed students. Based on the test data, the critical value for the study was 5.991.

According to the North R-I School District data, the Goodness of Fit value for third grade was 8.5166, seventh grade was 5.995, and eighth grade was 6.1867. This indicated that the decrease in the Communication Arts student achievement was statistically significant. The Goodness of Fit value for fourth grade was 4.9074 and fifth grade was .9469. This indicated that the decrease in the Communication Arts student achievement was not statistically significant. The Goodness of Fit value for sixth grade was 8.5446. This indicated that the sixth grade was the only grade with a statistically significant increase in Communication Arts student achievement.

In analyzing the correlation coefficient from the North R-I School District and the Missouri state averages, the data revealed that grades five and seven did have a strong negative relationship, and grade eight had a strong positive relationship. The correlation coefficient was used to determine if there was a relationship between the North R-I

School District MAP scores and the Missouri state average MAP test scores. The correlation coefficient for third grade was 0.2256 and fourth grade was -0.94176. This data indicates that the maturation of data was not established. The correlation coefficient for sixth grade was -0.56498. This data indicates that the maturation of data had a negative relationship. The correlation coefficient for fifth grade was -0.94176 and seventh grade was -0.85543. This data indicates that the maturation of data had a strong negative relationship. The correlation coefficient for eighth grade was 0.70065. This data indicates that the maturation of data had a strong positive relationship.

In analyzing the Chi-Square Goodness of Fit test and the correlation coefficient test, the data rejected the null hypothesis that the implementation of 6 + 1 Trait Writing will improve student achievement as evidenced by a statistically significant increase in Communication Arts scores on the MAP test.

Research Question Two

The overarching qualitative research question asked if the teachers perceive 6 + 1 Trait Writing to be effective in promoting student achievement. Data from the participants' surveys and roundtable discussions indicated that teachers believed that the 6 + 1 Trait Writing program can increase student achievement. The following research questions were evaluated by looking at the survey and roundtable discussion to determine if the data addressed this overarching question.

What were the teachers' perceptions of their role and responsibility in the integration of the 6 + 1 Trait Writing strategies in their daily instruction? The data showed that the teachers felt that their role in the integration process was centered on communication. They needed to have open communication with each other to know what

is expected out of the next grade level so that they could develop a scope and sequence as to how to integrate 6 + 1 Trait Writing across the curriculum. Data from the surveys and discussions revealed that teachers did believe in the daily implementation of the 6 + 1 Trait Writing components, but they did not consistently implement it during the first year due to lack of understanding of the program.

What were the teachers' perceptions of 6 + 1 Trait Writing on student achievement? The survey showed that only 28% of the teachers indicated that student achievement and student writing improved. The data from the roundtable discussion indicated that writing has improved over time but was slow due to the inconsistent implementation of the writing program without some form of handbook that easily explained the traits. The survey was taken two weeks after the MAP was taken by the students in May 2009. The roundtable discussions occurred in September 2009 after MAP results were release to the North R-I School District. The teachers' perception of the effectiveness of the program shifted to be more positive from the time of the survey to the roundtable discussions after the teachers better understood the 6 + 1 Trait Writing program.

How will teacher perceptions affect the success of the 6 + 1 Trait Writing program? The survey participants showed that 12 out of 18 teachers felt the program was good, very good, or excellent with the remaining 6 rating the program fair to poor. The roundtable discussion groups had a lower participation rate (n=12), which showed a positive impression of the 6 + 1 Trait Writing program. The data showed that if the teachers did not believe the program was effective in improving student achievement then

they did not consistently use 6 + 1 Trait Writing in their daily lessons. If they did not use the program, then the students cannot improve.

How does 6 + 1 Trait Writing professional development enhance the quality of writing instruction leading to student achievement? The data from both the survey and roundtable discussions showed that the professional development program used to train the teachers on 6 + 1 Trait Writing was not effective during the early stages of the implementation of the program. The data showed that once the teachers understood how to use the 6 + 1 Trait Writing program then they were able to write more on a daily basis, which improved writing. After the teachers understood the traits, they believed that they have focused more on writing and they have become better teachers of writing due to the traits. Teachers felt that the traits give them a framework to write from, and the program has caused them to write more.

Discussion of Findings

The North R-I School District was selected because of their participation in the 6 + 1 Trait Writing program. The quantitative findings of this study are based on the MAP test scores in the area of Communication Arts for the North R-I School District and the Missouri state average. The qualitative data of this study are based on teacher perceptions and the assumption that all teachers will respond honestly and understand the instrument as intended.

Overall, the quantitative data findings reject the hypothesis H_1 and accept the null. The data from this exploratory study does not support that the 6 + 1 Trait Writing program will have a significant increase on the student achievement of students. While the sixth grade level showed an increase in student achievement in the North R-I School

District, the majority of the grade levels showed a decrease in writing achievement as measured by the Communication Arts MAP. Based on the qualitative data, the researcher concluded that all grade levels did not show an increase in student achievement due to the inconsistency of implementation and understanding of the 6 + 1 Trait Writing program by all grade level teachers.

The sixth grade was the only grade that showed a statistically significant increase in student performance on the Communication Arts MAP. The researcher determined the increase was due to the sixth grade teacher consistently implementing and understanding all components of the 6 + 1 Trait Writing program. The third, seventh, and eighth grade students' performance showed a statistically significant decrease on the Communication Arts MAP. The decrease was due to the teachers' lack of implementation and understanding of the 6 + 1 Trait Writing program. Those teachers could have been the teachers that indicated they did not teach writing consistently and had a negative perception of the program as indicated by the survey results. The quantitative results were reinforced through the qualitative survey and roundtable discussion groups.

In this study, qualitative data were utilized to help the researcher better understand the reasons why the 6 + 1 Trait Writing program may not have been successful in the North R-I School District. Themes that surfaced through the qualitative data analysis were noted. The primary themes appeared to be essential to the integration of the 6 + 1 Trait Writing program in classroom instruction and the influence on student success include providing structure for teachers to teach and evaluate writing through a step-by-step process and providing consistent professional development and accountability of teachers. The qualitative findings supported the need for job-embedded

professional development and more consistent implementation of 6 + 1 Trait Writing by all teachers.

The 6 +1 Trait Writing program encompasses seven traits where teachers learn how to teach writing, facilitate the writing process, and assess writing. Gansle et al. (2006) stated “writing is a multidimensional task that is frequently assessed with one-dimensional production-based measures” (p. 437). The Gansle et al. study reinforced the researcher’s conclusion for on-going professional development and consistent implementation of the program.

Limitations

While it was proposed that the implementation of 6 + 1 Trait Writing had a statistically significant impact on student achievement, the researcher identified the following limitations to the study. Findings of this study included limitations in the areas of standardized testing, subject characteristics, classrooms, and socioeconomic status.

Standardized testing. The first limitation to this study was the performance based test used to determine student achievement. Standardized tests do not take a complete look at what the students have learned but merely a snapshot as to what knowledge they can recall from the students’ preparation for the test. The use of scoring rubrics on classroom student writing could have been another indicator to consider on determining student improvement. Teacher perceptions of 6 + 1 Trait Writing showed that the teachers believed that students’ classroom writing had improved, but the Communication Arts MAP data did not support their perception. Since the study only used MAP data to determine student improvement in writing, standardized testing is a limitation to the study.

Subject characteristics. The second limitation of this study was the subject characteristics threat. The subjects in this study differed on variables of gender, reading ability, socioeconomic background, ethnicity, vocabulary, and age. There was the likelihood that the groups were not fully equivalent on one or more of the preceding variables. Since the study looked at all third through eighth grade students at North R-I School District and they are differentiated by the subgroups of No Child Left Behind (NCLB), it is determined that subject characteristics did not affect the results of this study. However, subject characteristics could be eliminated by evaluating the performance of groups.

Classrooms. A third limitation to this study was the classrooms themselves. Each grade level at North R-I School District has one teacher for grades three through six with two teachers for grades seven and eight. Each classroom and grade had different resources available for instruction, which was discovered during the roundtable discussions. The variety of classroom instructional resources and the differences of instructional techniques may account for the performance variances by students in individual classrooms and grades at North R-I.

Socioeconomic status. Socioeconomic status was the fourth limitation to the study. The North R-I School District consistently has over 40% free and reduced lunch population, which makes socioeconomic status a limiting factor to student achievement. To help eliminate this limitation, some teachers in each building attended professional development training to meet the needs of low socioeconomic students. If all teachers would have received the training, the socioeconomic status limitation could have been minimized.

Recommendations

Recommendations for Future Research

Further quantitative and qualitative studies should be done to investigate effective writing practices. This study recommends further exploration in six areas.

1. A similar study on the impact of 6 + 1 Trait Writing on student achievement within different school districts using the 6 + 1 Trait Writing program should be conducted to determine if the results are similar or different from the findings in this study.
2. A similar study on the impact of 6 + 1 Trait Writing on student achievement within the same school district three years after implementation of the 6 + 1 Trait Writing program should be conducted to determine if the results are similar or different from the findings in this study.
3. A similar study of student achievement in non 6 + 1 Trait Writing school districts should be conducted to determine if the results are similar or different from the findings in this study.
4. A similar study on the impact of 6 + 1 Trait Writing on student achievement in schools with high socioeconomic status percentages should be conducted to determine if the results are similar or different from the findings in this study.
5. A study investigating the benefits perceived by parents related to the impact of 6 + 1 Trait Writing on student achievement in schools should be conducted.

6. A study should be conducted to investigate the appropriate writing training program for elementary and high schools.
7. A study on the impact of 6 + 1 Trait Writing on student achievement using another source of data besides Communication Arts MAP data to measure student writing.

Recommendations for Improving Educational Practice

The decision to study the 6 + 1 Trait Writing program in elementary and middle school classrooms and the influence of the 6 + 1 Trait Writing research-based strategies on student achievement reflected the researcher's personal experience. This study was designed to examine the use and implementation of the 6 + 1 Trait Writing strategies in classroom instruction of students in grades three through eight. The main focus was the relationship of 6 + 1 Trait Writing research-based writing strategies and teacher perceptions of the program on student achievement.

North R-I School District should focus on professional development and accountability of implementation of 6 + 1 Trait Writing through the formation of vertical teams. The curriculum coordinators should work with the vertical teams to develop a 6 + 1 Trait Writing handbook outlining the seven traits with scoring rubrics to assess student writing. The district should display banners highlighting the seven traits to increase student awareness of the 6 + 1 Trait Writing program. These banners will serve as visual instructional aids for students as they write and self assess their writing in the classroom. These recommendations should improve educational practices since all teachers will have the same common writing vocabulary and fully implemented the program.

Another recommendation for improving educational practice would be the investigation of the use of 6 + 1 Trait Writing in new teacher training programs and mentorship. Discovering how new teacher training programs integrate the seven components of writing and how new teachers are taught to teach these components throughout these programs could improve student writing performance. The use of 6 + 1 Trait Writing trained teachers as mentors for non 6 + 1 Trait Writing trained teachers should enhance the use of the seven components and research-based strategies in classroom instruction.

Recommendations for Professional Development

The findings of this study imply that more professional development activities on how to successfully implement the 6 + 1 Trait Writing program in the classroom need to occur. The method used to implement the 6 + 1 Trait Writing program focused more on the methodology and research but did not effectively train teachers how to integrate the traits in their daily lesson plans. Teachers need to be taught why it is important to teach the seven components in daily instruction, how to use the components, and be given activities that promote growth in writing.

The finding of the qualitative portion of the study implies that the use of a simple 6 + 1 Trait Writing handbook that included writing samples and scoring guides along with in-depth training on using the handbook will make consistent implementation easier across the curriculum. All teachers in the North R-I School District, not just third through eighth grade Communication Arts teachers, must be teaching writing the same way using the 6 + 1 Trait Writing program to have consistent student writing. When this approach is

taken with professional development, learning will occur and students will see improvement in their writing.

Conclusion

The study looked at the impact of 6 + 1 Trait Writing on student achievement on the Communication Arts MAP during the first year of implementation. The researcher concludes that for student writing to improve the teachers must believe in the effectiveness of the 6 + 1 Trait Writing program, receive on-going professional development, and implement the program with fidelity across the curriculum at every grade level.

In this study, all teachers were mandated by the North R-I School District to receive 6 + 1 Trait Writing professional development and to implement the research-based writing strategies within each classroom. The qualitative data revealed the frequency of writing instruction varied from teacher to teacher. Consistency of implementation did affect the results of this study.

The researcher believes that when implementing a new program, more time is needed to see a statistically significant increase in student achievement. The North R-I School District is continuing the program to see if student achievement increases now that teachers believe in the effectiveness of the 6 + 1 Trait Writing program.

References

- ACT Educational Services. (2003). *Chapter 1: English and writing*. Retrieved May 5, 2009, from <http://www.act.org/news/releases/2003/pdf/english.pdf>.
- ACT Newsroom. (2003, April 8). *Survey shows writing skills most important to college teachers not always emphasized in high school instruction*. Retrieved May 5, 2009, from <http://www.act.org/news/releases/2003/4-08-03.html>.
- Adams, D., Power, B., Reed, M., Reiss, P., & Romaniak, J. (1996). Improving writing skills and related attitudes among elementary school students. (pp. 17-49) Tinley Park, IL: Saint Xavier University & IRI/Skylight.
- Alexander, P.A. & Murphy, P.K. (1998). The research base for APA's learner-centered psychological principles. In N.A. Lambert & B.L. McCombs. (Eds.), *How students learn: Reforming schools through learner-centered education* (pp. 25 – 60). Washington, DC: American Psychological Association.
- American Psychological Association. (APA) (1997, November). *Learner-centered psychological principles: A framework for school redesign and reform*. Retrieved May 5, 2009, from <http://www.apa.org/ed/lcp.html>.
- Association for Supervision and Curriculum Development. (2008) *Overview of ESEA/NCLB*. Retrieved May 2, 2009, from <http://ascd.org>.
- Bangert-Droiw, R., Kulik, J., & Kulik, C. (1991) Effect of frequent classroom testing. *Journal of Educational Research*, 85(2), pp. 89-99.

- Baron, D. (2008, January). Imagine: Professional Development That Changes Practice. *Principal Leadership*, High School Addition, pp. 56-58.
- Berends, M. (2004). In the wake of a nation at risk: New American schools' private sector school reform initiative. *Peabody Journal of Education*, 79(1), 130-163.
- Bloodgood, J. (2002, Fall). Quintilian: A classical educator speaks to the writing process. *Reading Research and Instruction*, 42, 1, 30-43. Retrieved May 5, 2009, from the ProQuest database.
- Bluman, A. (2008). *Elementary Statistics: A step by step approach* (4th ed.). New York, NY: McGraw-Hill.
- Bogdan, R. & Biklen, S. (1998) *Qualitative Research in Education: An introduction in theories and method* (3rd ed.). Boston: Allyn and Bacon.
- Boss, S. (2002, Winter). Permanent ink. *Northwest Education Magazine*, 8, 2. Retrieved May 5, 2009, from <http://www.nwrel.org/nwedu/08-02/ink.asp>.
- Boyd, R. (2005, March 21). "Netspeak" doing more good than harm to English language, experts say. *Knight Ridder Newspaper*. Retrieved May 5, 2009, from <http://www.realcities.com/mld/kriwashington/11194526.htm>.
- Bratcher, S. & Stroble, E. (1994). Determining the progression from comfort to confidence: A longitudinal evaluation of a national writing project sited based on multiple data sources. *Research in the Teaching of English*, 28(1), 66-88.
- Braunger, J., & Lewis, J., (2006) *Building a knowledge base in reading* (2nd ed.). Newark, DE: International Reading Association.

- Brooks-Young, S. (2007, August). Professional Development: Putting the LURE in Learning Community. *The Journal: Transforming Education Through Technology*, pp. 18-20.
- Brown, D. (2003). Learner-centered conditions that ensure students success in learning. *Education*, 124(1), 99-104.
- Bruffee, K.A. (1999). *Collaborative learning: Higher education, interdependence, and the authority of knowledge* (2nd Ed.). Baltimore: The John Hopkins University Press.
- Chhabra, V., & McCardle, P. (2004) *The Voice of Evidence in Reading Research*. Baltimore MD: Paul H. Brookes Publishing Co.
- Clanton, G. (1997). A semi-painless way to improve student writing. *Thought & Action*, 13(1), 21-30.
- Colbaugh, N. (2001). *The development of leadership capacity within a school undergoing comprehensive school reform*. Doctoral dissertation, University of Missouri-Columbia.
- Congress of the United States Congressional Budget Office (1987). *Educational achievement: Explanations and implications of recent trends*. Washington, DC: Congressional Budget Office.
- Creswell, J. (1994) *Research Design: Qualitative and Quantitative Approaches*. Thousand Oaks, CA: Sage.
- Culham, R. (2003) *6 + 1 Traits of Writing*. Northwest Regional Educational Laboratory.
- Cutler, L. & Graham, S. (2008). Primary grade writing instruction: A national survey *Journal of Educational Psychology*, 100(4), 907-919.

- Darling-Hammond, L. & McLaughlin, M.W. (1995). Policies that support professional development in an era of reform. *Phi Delta Kappan*, 76(8), 597-604.
- Darling-Hammond, L. & Wise, A. (1985). Beyond standardization: State standards and school improvement. *The Elementary School Journal*, 85, 315-36.
- Desimone, L.M., Porter, A.C., Garet, M.S., Yoon, K.S., & Birman, B.F. (2002). Effects of professional development on teachers' instruction: Results from a three-year longitudinal study. *Educational Evaluation & Policy Analysis*, 24(2), 81-112.
- Elbow, P. (1991). Toward a phenomenology of freewriting. In P. Belanoff, P. Elbow & S. Fontaine(Eds.), *Nothing begins with 'n':New investigations of freewriting* (pp. 189-213). Carbondale, IL: Southern Illinois University Press.
- Elbow, P. (1973). *Writing without teachers*. New York: Oxford.
- Ertmer, P.A., Conklin, D., Lewandowski, J., Osika, E., Selo, M., & Wignall, E. (2003, Winter). Increasing preservice teachers capacity for technology integration through the use of electronic models. *Teacher Education Quarterly*, 30(1), 95-112.
- Fiszer, Edward, P. (2003) *How Teachers Learn Best: An Ongoing Professional Development Model*. Scarecrow Education.
- Forsten, C., Grant, J., & Richardson, I., (1999) Multiage and looping: borrowing from the past. *Principal*, 78(4), pp. 15-16.
- Fox, C. (2007, July). From Technophobes to Tech Believers. *The Journal: Transforming Education Through Technology*, pp. 36-37.
- Fraenkel, J.R., & Wallen, N.E. (2009). *How to Design and Evaluate Research in Education*. New York: McGraw-Hill Higher Education.

- Fryer, W. (2007, August). Report from EduComm 2007. *District Administration*, pp. 44-48.
- Fullan, M. (1991). *The new meaning of educational change*. New York: Teachers College Press.
- Gansle, K., VanDerHeyden, A., Noell, G., Resetar, J., & Williams, K. (2006). The technical adequacy of curriculum-based and rating-based measures of written expression for elementary school students. *School Psychology Review*, 35(4), pp. 435-450.
- Gersten, R., Vaughn, S., Deschler, D., & Schiller, E. (1997). What we know about using research findings: Implications for improving special education practice. *Journal of Learning Disabilities*, 30(5), 466-476.
- Goals 2000: Educate America. (1994). [online document]
<http://www.ed.gov/legislation/GOALS2000/TheAct/index.html>.
- Gruenert, S.W. (1998). *Development of a school culture survey*. Doctoral dissertation, University of Missouri-Columbia.
- Hagemann, J. (2003, January). Balancing content and form in the writing workshop. *English Journal*, 92(3), 73-79. Retrieved May 5, 2009, from the ProQuest database.
- Harris, K. & Graham, S. (1996). *Making The Writing Process Work: Strategies For Composition And Self-Regulation*. Cambridge, MA: Brookline.
- Hoepfl, M. (1997) Choosing Qualitative Research: A primer for Technology Education Researchers. *Journal of Technology Education*, 9(1) Retrieved May 1, 2009, from <http://scholar.lib.vt.edu>.

Isernhagen, J., Kozisek, J. (2000). Improving Students' Self – Perceptions as Writers.

Journal of School Improvement, 11(2), 3-4.

Jago, C. (2005). *Papers, papers, papers*. Portsmouth, NH: Heinemann.

James, L., Abbott, M., & Greenwood, C. (2001). How Adam became a writer: winning writing strategies for low-achieving students. *The Council for Exceptional Children*, p. 30-37.

Keeler, Carolyn (1996, Spring). Networked instructional computers in the elementary classroom and their effect on the learning environment: A qualitative evaluation.

Journal of Research on Computing in Education, 28, 329-45.

Keith, S. & Girling, R.H. (1991). *Education, management, and participation: New directions in educational administration*. Needham Heights, MA: Allyn & Bacon.

Kiuhara, S. (2009) *Teaching Writing to High School Students: A National Survey*.

Retrieved June 9, 2009, from

<http://www.eric.edu.gov/ERICWebPortal/Home.portal>.

Lieberman, A. (1995). Practices that support teacher development. *Phi Delta Kappan, 76(8), 591-596.*

McCombs, B.L. & Whisler, J.S. (1997). What is “learner centered”? In *The learner centered classroom and school: Strategies for increasing student motivation and achievement* (pp. 1-35). San Francisco: Jossey-Bass.

Missouri Department of Elementary and Secondary Education (MODESE) (2000).

Meeting the challenge. Retrieved May 1, 2009, from

<http://dese.state.mo.us/stateboard/challengeintro.html>.

Missouri Department of Elementary and Secondary Education. (MODESE) (2004).

Mission, mandates, and regulations for professional development. Retrieved May 1, 2009, from www.dese.state.mo.us/divimprove/pd.

Missouri Department of Elementary and Secondary Education. (MODESE) (2008).

Assessment standards for Missouri public schools. Retrieved May 1, 2009, from <http://www.dese.mo.gov>.

Missouri Department of Elementary and Secondary Education. (MODESE) (2007).

School data and statistics. Retrieved May 1, 2009, from <http://www.dese.mo.gov>.

Mouza, C (2002/2003, Winter) Learning to teach with new technology: Implications for professional development. *Journal of Research on Technology in Education* 35(2), 272-289.

National Assessment for Educational Progress (NAEP) (2007). The Nation's Report Card. Retrieved May 1, 2009, from <http://nces.ed.gov/nationsreportcard/>.

National Center for Education Statistics (NCES) (2001, January) *Digest of education statistics 2000*. Washington DC: Author.

National Commission on Excellence in Education (1983). *A nation at risk: The imperative for educational reform*. Washington, DC: U.S. Government Printing Office.

National Institute of Child Health and Human Development (NICHD) (2000). Report of the National Reading Panel. Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction. (NIH Publication No. 00-4769). Washington, DC: United States Government Printing Office.

- National Writing Project (2003). "National Writing Project Statement on the 2002 NAEP Writing Report." Retrieved June 9, 2009, from <http://www.writingproject.org/pub/nwpr/news/2003/2002naep.html>.
- Nichols, S.L., Glass, G.V., & Berliner, D.C. (2006). High-stakes testing and student Achievement: Does accountability pressure increase student learning? *Education Policy Analysis Archives*, 14(1). Retrieved on June 3, 2009, from <http://www.epaa.asu.edu/epaa/v14n1>.
- No Child Left Behind Act of 2001 (NCLB) (2002), PL 107-110, 115 Stat. 1425, 20 U.S.C 6301 *et seq.*
- Nystrand, R.O. (1992). The new agenda for the nation's schools. *Education and Urban Society*, 25(1), 18-29.
- Paul, J.L., & Marfo, K., (Winter 2001). Preparation of educational researchers in philosophical foundations of inquiry. *Review of Educational Research* 71 (4), 525-547.
- Payne, R. (2005) A Framework to Understanding Poverty. Highlands TX. Process, Inc.
- Russell, D. (1991). Writing in the Academic Disciplines, 1870-1990: A Curricular History. Retrieved June 9, 2009, from <http://eric.ed.gov/ERICWebPortal/custom/portlets>.
- Sams, L. (2003). How to teach grammar, analytical thinking, and writing: A method that works. *English Journal*, 92(3), 57-65. Retrieved May 5, 2009, from the ProQuest database.

- Shanahan, T. (2004). "Overcoming the dominance of communication: Writing to think and learn." In T.L. Jetton & J.A. Dole. *Adolescent Literacy Research and Practice*, 59-73. New York, NY: Guilford Press.
- Slavit, D., Sawyer, R., & Curley, J. (2003). Filling your plate: A professional development model for teaching with technology. *TechTrends*, 47(4), 35-38.
- Smith, C. (2000, November). Writing instruction: Changing views over the years. *ERIC Digest*, 155. Retrieved May 5, 2009, from the ERIC database.
- Smith, C. (2003) Successful use of the six traits in writing. *ERIC Clearinghouse of Reading*, 9(6) Retrieved May 5, 2009, from <http://www.eric.edu.gov>.
- Spandel, V. (1997). *Dear parent: A handbook for parents of 6 trait writing students*. Northwest Educational Lab., Portland, OR.
- Steineger, M. (1996). A way with words. *Northwest Education*, 2(1), 20-24.
- Stone, E. (2001, March). Lok I can rit. *Parents*, 66(3), 102-108. Retrieved May 5, 2009, form the ProQuest database.
- Strech, L. (1994). The implementation of writing workshop: A review of the literature. *ERIC Document ED 380 797*.
- Strickland, D. (1991). *Emerging literacy: How young children learn to read*. In B. Persky and L.H. Golubchick, *Early Childhood Education* (2nd ed.) 337-344. Newark, DE: International Reading Association.
- Taylor, B.M., Pearson, P.D., Peterson, D.S., & Rodriguez, M.C. (2003) Reading growth in high-poverty classrooms. The influence of teacher practices that encourage cognitive engagement in literacy learning. *Elementary School Journal*, 104, 3-28.

The Traits Organization. (2009) *6 + 1 Trait Writing*. Retrieved October 21, 2009, from <http://www.thetraits.org>.

The White House. (2001, September 8) *President emphasizes education reform in radio address*. Retrieved October 23, 2003, from <http://www.whitehouse.gov/news/releases/2001/09/20010908.html>.

Truss, L. (2003). *Eats, Shoots & Leaves*. New York: Penquin Group.

White, N., Ringstaff, C., & Kelley, L. (2002). *Getting the most from technology in schools*. Knowledge Brief of WestEd Publications.

Yancey, K. (2009). *Writing in the 21st century*. Retrieved June 9, 2009, from <http://www.eric.ed.gov/ERICWebPortal/Home.portal>.

Zakon, R. (2005). *Hobbes internet timeline v.8.0*. Retrieved May 5, 2009, from <http://www.zakon.org/robert/internet/timeline>.

Zemelman, S., Daniels, H., & Hyde, A. (2005) *Best practices: Today's standards for teaching and learning in America's schools*. Heinemann Publishing Co.

Appendix A – Consent Form

Roundtable Discussion Consent Form

_____ I agree to participate in the roundtable discussion to help gauge teacher perceptions of the effectiveness of the 6 + 1 Trait Writing professional development on teaching and learning. I understand that this is voluntary and that any data gathered will be reported anonymously and will be kept confidential.

Print Name: _____

Date: _____

Signature: _____

School: _____

Grade Level Taught: _____

Phone Number: _____

Please list day of the week that would be best for you: _____

Appendix B – Letter

May 8, 2009

Dear Teacher:

I am currently enrolled in the Doctor of Administration program at Lindenwood University. This fall I will be working to complete the culminating research project.

My intention is to research a topic that will benefit the Silex R-I School District. I would like to conduct research relative to the effectiveness of 6 + 1 Trait Writing. In 2008-2009, each of you received 6 + 1 Trait Writing professional development. I would like to determine the effect of the 6 + 1 Trait Writing professional development on student achievement in the area of Communication Arts. I am requesting thirty minutes of your time to answer survey questions on Survey Monkey. To aid in the effectiveness of this study, in relation to teacher perceptions, I would also like to allow each of you the opportunity to participate in a roundtable discussion with our curriculum coordinator. The purpose of this roundtable discussion will be to gauge teacher perceptions about the implementation of and the continuation of 6 + 1 Trait Writing in your classrooms. I will be using this discussion to determine the benefits of 6 + 1 Trait Writing on individual teachers and their students and to also gain an understanding about where to go from here as a district.

At this time, I request your participation in this roundtable discussion, which will take one hour of your time. Any data collected from this discussion will be anonymously reported and held confidential. If you are interested and would be willing to participate, please sign and return the attached form to me by September 4, 2009. I look forward to working with each of you in continuing to make Silex R-I School District the best small school in the State of Missouri.

Sincerely,

Mr. Bruce Werkmeister
Principal

Appendix C – Survey

6 + 1 Trait Writing Professional Development Survey

1. Rate the following components of 6 + 1 Trait Writing in terms of how helpful or useful each one was:

<u>Writing Strategies</u>	<u>(Not exposed) Least</u> <u>Most</u>					
1. Ideas	0	1	2	3	4	5
2. Sentence Fluency	0	1	2	3	4	5
3. Organization	0	1	2	3	4	5
4. Word Choice	0	1	2	3	4	5
5. Voice	0	1	2	3	4	5
6. Conventions	0	1	2	3	4	5
7. Presentation	0	1	2	3	4	5

2. Do you utilize the 6 +1 Trait Writing components at least once in your daily lesson plans?

<u>Not at all</u>						<u>Always</u>
0	1	2	3	4	5	

3. Has student achievement improved since 6 + 1 Trait Writing was brought to Silex R-I School District?

<u>Not at all</u>					<u>A Great Deal</u>
0	1	2	3	4	5

4. How does 6 + 1 Trait Writing help you meet the needs of all students?

5. What, if any, components/teaching methods are missing from 6 + 1 Trait Writing?

6. How has 6 + 1 Trait Writing changed your teaching/instructional techniques?

7. Do you feel the implementation of 6 + 1 Trait Writing professional development has been effective overall?

Appendix D – Roundtable Discussion Questions

1. What skills from 6 + 1 Trait Writing are most helpful in your daily classroom instruction?
2. What impact has 6 + 1 Trait Writing had on your daily classroom instruction?
3. What could be added to the 6 + 1 Trait Writing professional development program to serve you better?
4. Has 6 + 1 Trait Writing been effective in your classroom? If so, how? If not, why do you feel this?
5. What were some of the barriers to your 6 + 1 Trait Writing training?
6. What would help you to be more accountable in teaching the 6 + 1 Trait Writing research-based strategies with fidelity?
7. What do you feel is your role and responsibility in terms of 6 + 1 Trait Writing implementation and daily classroom instruction?

Vitae

Bruce E. Werkmeister was born in Troy, Missouri, on April 30, 1972. He grew up in Troy, Missouri, and graduated from Troy Buchanan High School in the spring of 1990. Werkmeister was accepted to University of Missouri-Columbia and graduated with a Bachelor's Degree in Agriculture Education. In 1994, he began working in the Putnam County R-I School District at Putnam County High School. Werkmeister taught high school agriculture education and served as the district's FFA advisor. In 1997, Werkmeister moved to the Monroe City R-I School District as a middle school and high school agriculture teacher and FFA advisor where he served in that capacity for two years. After his second child was born and he finished his first Master's Degree in Agriculture Education from the University of Missouri-Columbia in 1999, Werkmeister moved to the Bowling Green R-I School District where he served as a high school agriculture teacher and FFA advisor for six years. In 2003, Werkmeister began pursuing a second advanced degree from Missouri Baptist University. In the spring of 2005, Werkmeister graduated with a Master's Degree in Educational Administration. In the summer of 2005, Werkmeister left the classroom to pursue a career as a junior high and high school building principal. Werkmeister has served as the principal of Silex R-I Junior High and High School in Silex, Missouri, for the past five years. Werkmeister is currently enrolled in the Doctor of Education program at Lindenwood University and anticipates his graduation in 2010.