

TEACHER CHARACTERISTICS AND EFFECTIVE IMPLEMENTATION
OF THE ACCELERATED READER PROGRAM, AS REPORTED
BY TEACHERS OF AFRICAN AMERICAN STUDENTS

by

DEBRA RENEE JOHNSON

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Rochester, Michigan

APPROVED BY:

Gwendolyn McMillon, Ph.D., Chair Date

Lizabeth Guzniczak, Ph.D. Date

Mary Lose, Ed.D. Date

Marsha Malone-Thompson, Ph.D. Date

Jana Nidiffer, Ed.D. Date

Julia B. Smith, Ed.D. Date

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This dissertation is dedicated to Jesus Christ, Who provided inspiration and encouragement at every step of my dissertation journey. The concept of my attending Oakland University to achieve a Ph.D. developed out of a Sunday morning conversation at church with my friend, Beverly Brown, who informed me that a fellowship called King-Chavez-Parks was available there. After I was admitted to the Reading and Language Arts program, I applied three times for the fellowship and was awarded the blessing in September 2010, which was the same month my employer, the Detroit Board of Education, decided to cut my yearly salary by 10%. He may not come when we want Him, but He is always on time!

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Debra Renee Johnson

ABSTRACT

TEACHER CHARACTERISTICS AND EFFECTIVE IMPLEMENTATION OF THE ACCELERATED READER PROGRAM AS REPORTED BY TEACHERS OF AFRICAN AMERICAN STUDENTS

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Advisor: Gwendolyn McMillon, Ph.D.

How are teacher characteristics related to teaching practices in reading instruction? Melton, Smothers, Anderson, Fulton, Replogue, & Thomas (2004) maintained teachers are the most powerful dynamic in the classroom. African American students often attain lower reading scores than other students. It is important to determine which teacher characteristics may be affecting the reading achievement of African American students when the Accelerated Reading (AR) program is utilized in the classroom. This study examined teacher characteristics and compared them to elements of the Accelerated Reader program and teaching approaches the participants may have used with their African American students to increase their reading achievement scores. The study is necessary to the field of literacy because no study exists that considers the actions of the teachers when they utilize the AR program with their African American students to increase their reading achievement scores.

This study reported responses and comments of 25 teacher participants from three different elementary-middle schools. The use of quantitative data from the research-based online SurveyMonkey Pro survey and written comments from participants were considered the most effective methods of data collection and provided a logical approach to gathering information and maintaining the validity of the data. The 42-question survey instrument included multiple choice and free-response answers regarding how the participants implemented the AR program. The hypothesis predicted that the teacher characteristics would be related to all eight elements and all ten approaches. The data analysis was completed with IBM's SPSS Statistics software, Version 22, to determine statistically significant relationships.

The results of the study indicated five teacher characteristics, specifically the participants' educational level, the participants' total years of teaching experience, the participants' years of using AR in the classroom, the years the participants had been teaching the current grade, and the number of school or district AR workshops the participants attended positively correlated with multiple elements of the AR program and many of the teaching approaches the participants used with their African American students to increase their reading achievement scores.

TABLE OF CONTENTS

ACKNOWLEDGMENTS	iv
ABSTRACT	v
LIST OF TABLES	xii
CHAPTER 1	
INTRODUCTION	1
Overview	1
Purpose of Study and Research Questions	5
Definitions of Terms	7
Significance of the Study	9
Organization of Dissertation	11
CHAPTER 2	
LITERATURE REVIEW	12
The Achievement Gap and African American Students	13
Reading Achievement of African American Students	16
The Accelerated Reader Program	20
The Accelerated Reader Program at the Middle School Level	21
The Motivation Component of the Accelerated Reader Program	22
The Six Teacher Characteristics	28
Eight Elements of the AR Program	32
Ten Approaches that May Support African American Reading Achievement	33

The Individual Teacher	37
TABLE OF CONTENTS—Continued	
Summary	39
CHAPTER 3 METHODS	40
Overview and Research Questions	40
Six Teacher Characteristics	41
Eight Elements of the AR Program	42
Ten Teaching Approaches to Support African American Reading Achievement	43
Research Questions	44
Setting and Participants	44
Setting	44
Participants and Selection	45
Survey Description	47
Validation of the Survey	49
Survey Standards	49
Internet Surveys	50
Procedures	50
Process for Recruiting Participants	50
Process for Taking the Survey	51
Process for Receiving the Survey Data	51
Data Analysis	51

Summary	52
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TABLE OF CONTENTS—Continued

CHAPTER 4 RESULTS	54
Descriptive Information of the Eight Elements Of the AR Program	54
Descriptive Information for the Ten Approaches Participants May Use with the AR Program	55
Results Related to the Six Teacher Characteristics And the Eight AR Elements	55
Teacher Characteristic 1: Current Level of Educational Attainment	58
Teacher Characteristic 2: Total Years of Teaching Experience	60
Teacher Characteristic 3: Total Years of Teaching Experience at Current Grade Level	62
Teacher Characteristic 4: Number of School or District AR Workshops Attended	62
Teacher Characteristic 5: Years of Using AR in the Classroom	62
Teacher Characteristic 6: Grade Taught While Using AR	65
Summary of the Results of the Correlations Between the Six Teacher Characteristics and the Eight Elements of the AR Program	65
Results Related to the Six Teacher Characteristics and the Ten Approaches	67

Teacher Characteristic 1: Current Level of Educational Attainment	68
Teacher Characteristic 2: Total Years of Teaching Experience	70
TABLE OF CONTENTS—Continued	
Teacher Characteristic 3: Total Years of Teaching Experience at Current Grade Level	72
Teacher Characteristic 4: Number of AR Workshops Conducted by School or District Participant Had Attended	72
Teacher Characteristic 5: Years of Using AR in the Classroom	74
Teacher Characteristic 6: Grade Currently or Previously Taught While Using AR	77
Summary of the Results of the Correlations Between the Six Teacher Characteristics and the Ten Approaches Participants May Use with the AR Program	78
Final Participant Responses	80
Summary	80
CHAPTER 5 IMPLICATIONS	83
Introduction	83
Summary	83
Discussion of Participant Information	83
Relations of Teacher Characteristics with AR Elements And Teaching Approaches	85
Teacher Characteristic: Years of Teaching	

Experience at Current Grade Level	86
Teacher Characteristic: Number of AR Workshops Attended	87
Teacher Characteristic: Total Years of Teaching Experience	88
TABLE OF CONTENTS—Continued	
Teacher Characteristic: Level of Educational Attainment	90
Teacher Characteristic: Years of Using AR in the Classroom	93
Limitations	97
Directions for Future Research	98
Conclusions	100
APPENDICES	
A. Permission Letter from Oakland University’s Institutional Review Board	102
B. Information and Consent Page	104
C. The Teachers’ Survey	110
D. Data Related to the Six Teacher Characteristics	117
REFERENCES	130

LIST OF TABLES

Table 3.1	Ethnic Background of Study Participants	46
Table 4.1	Descriptive Information about the Eight Elements of AR Programs	56
Table 4.2	Descriptive Information about the Ten Approaches Used in AR Programs	57
Table 4.3	Relationship Between Teachers' Level of Educational Attainment and the Eight Elements	59
Table 4.4	Relationship Between Teachers' Total Years of Teaching Experience and the Eight Elements	61
Table 4.5	Relationship Between Years of Using AR in the Classroom and Eight Elements	64
Table 4.6	Summary of the Relationships Between Six Teacher Characteristics and Eight Elements of the AR Program	66
Table 4.7	Relationship Between Teachers' Level of Educational Attainment and Ten Strategies	69
Table 4.8	Relationship Between Teachers' Total Years of Teaching Experience and Ten Strategies	71
Table 4.9	Relationship Between Teachers' Years of Teaching Experience at Current Grade Level and Ten Strategies	73
Table 4.10	Relationship Between Teachers' Number of AR Worships Attended and Ten Strategies	75
Table 4.11	Relationship Between Teachers' Years of Using AR in the Classroom and Ten Strategies	76
Table 4.12	Summary of the Relationships Between Six Teacher Characteristics and Ten Strategies of the AR Program	79

CHAPTER 1

INTRODUCTION

Overview

As an honors student in the Detroit Public School District during the sixties and early seventies as my northwest neighborhood and the city shifted from predominantly White to the Hispanic, Chaldean, Hmong, and mostly African American blend (with a resurgence of White people) it is today, I longed to become a good teacher. A child of the middle class with a high school home economics teacher for a mother and a police officer as a father, I attended Fitzgerald Elementary in the first grade as one of the few Black children in the school, only to graduate as a sixth grader in a sea of young Black faces whose White friends had moved to far-away places.

As the only girl with three brothers, my parents expected good grades and they got them. My refuge was books. The school library (and later, the Main Detroit Public Library) was the source of my obsession and I became one of those students who always carried a book around. However, I still yearned to be a good teacher when I grew up. My student teaching experiences revealed that I did not like to discipline students. A supervising teacher in Oak Park told me to send disobedient students to the assistant principal; the children returned from his office in tears. I was not going to be a teacher who made children cry. I preferred to teach adults who had fewer discipline challenges, and I did.

When the state required GED applicants, who generally read on the fourth-grade level, to write essays, I developed an essay outline to help them pass the test. Extremely

poor readers were sent to the reading laboratory where a kind woman taught them phonics. I taught adult education until a shift in educational policies severely reduced the adult education program in Detroit, causing the principal to constrict my hours and therefore, my income. Now, it was time for me to teach the children of the city.

The following school year I became a contract teacher at one of the worst high schools on the west side of Detroit. “Kids run wild there!” warned a colleague, and I stomped into the school on the first day with a terrible attitude. “I do not even want to be in this stupid school!” I fumed out loud as I entered the back of the building from the parking lot through the kitchen, so incensed that all a dismayed middle-aged cafeteria worker could say was “Oh, my!” I calmed down and taught five classes of ninth graders in the basement classroom I had been assigned as I smelled mildew and wet wood every morning for the next ten months. After I taught them how to write a variety of essays, short stories, poems, skits, and the research paper in addition to my instructing grammar two days a week, the principal moved me into the air-conditioned wing of the school to teach honors classes the following year. Then he sent me to workshops to train as an Advanced Placement English and Composition instructor. For 12 years, I taught the children of the city how to write as they won contests, passed state-mandated and Advanced Placement tests, increased their writing scores, and were prepared for their freshman college courses in writing. I still did not know how to teach children to read better.

Relief came when the district decided to close the high school—it was my only way out. To save money, the Personnel Department decided to encourage older high

school teachers to retire by placing them in middle schools so I ended up in a magnet middle school in Detroit as a drama and speech instructor. Here, I learned these African American students' reading scores were consistently above the city and state averages.

While I worked at the magnet middle school, I had continued taking classes for a doctorate in Reading Education at Oakland University and was searching for a means to increase the reading scores of African American children. The research I pored over offered suggestions, but here at the magnet middle school was the proof I had desired. What had increased these students' scores to a successful level, I inquired. The response from the teachers, administration, and even the students was the same—the Accelerated Reader (AR) program, which I had never imagined existed or had been exposed to during my years of teaching. At the magnet middle school, the fifth and sixth grade English teachers focused on increasing the children's reading scores by having them read ten to twelve books during the school year from the AR program. It was this approach, in addition to strong parental support at this magnet middle school, that led to the school's exceptionally high reading scores.

An English vacancy appeared at a midtown high school after my second year at the magnet middle school, and I was transferred to fill it. The position was replete with five classes; each with access to the AR program for high school students as the district now invested heavily in vendors at the high school level. Though no workshop was offered, I was determined to master all aspects of the program and apply them to my students. Since the AR program literature stated students should read a million words during the school year, I encouraged (but not required) my students to do so. A few did,

and each raised her reading score several years during that school year to 12.9, the highest score the AR program registered.

Fridays became AR Day for all classes and my students spent the entire class period reading their AR books as I held individual conferences with them to discuss their progress. I created a classroom library of AR books and I encouraged students to visit the school library where the supportive librarian would lead them to even more AR books. I presented booktalks which described new AR books or AR books by African American authors and asked which students wanted to read them. Each Friday, I encouraged them to read or test. I printed out their weekly scores and examined their monthly progress. I shared AR progress and scores during my students' parent-teacher conferences. I noticed my students' reading scores rising even when they did not pass the tests on the books. As far as I was concerned, I had found what I had long been looking for—AR was an effective method I could use to increase the reading achievement scores of African American children. AR appeared to work because it was measurable and objective: when students read, their scores increased. Yet, perhaps I had successfully adapted the AR program to more effectively improve the reading achievement of my students.

Although most of the English teachers in the high school did not utilize the program with their students, a few did. The school administration did not require its use nor did it monitor the students' reading scores. Thus, we teachers who loved AR discussed our experiences among ourselves. I wondered about we teachers who used the AR program with our students—which characteristics did we share and what approaches did we take as we implemented the program? Did the characteristics of the teachers

determine which approaches were used with the students? Were the teachers using the features of the AR program in the same or different ways? Which approaches were effective and which were ineffective? Were we all using the same methods or a variety of approaches? How did the school atmosphere or administration's attitude toward AR affect the teachers' use of the program? I formed my questions into this dissertation because increasing the reading achievement levels of Black children is quite important to me.

Purpose of Study and Research Questions

The activities that I used to increase the reading achievement scores of my African American students as I utilized the AR program formed the basis of the research questions of this study. Also, I had noticed how the school atmosphere of the magnet middle school strongly supported the AR program and that support was an important factor in the students' high reading achievement scores. As I formulated the two research questions of this study, the characteristics of the teachers seemed to be the major part of what occurred during implementation of the AR program. The school atmosphere plus the features of the AR program itself appeared to be vital elements that needed to be compared with the teachers' characteristics. Also, the teachers' characteristics needed to be compared with the approaches the teachers used in the classroom as they administered the program to their students. I felt the answers to these questions would result in information that would assist others and me to increase the reading achievement scores of African American children.

Identification of best practices for increasing the reading achievement levels of Black children is a necessity. African American students, who are more likely than White

students to live in economically depressed areas, are at high risk for reading failure (Craig, Conner, & Washington, 2003; Lee, Winfield, & Wilson, 1991). Rather than abandoning African American students to low-level, low-expectation learning environments, changing ineffective practices is the key to educational success (Denbo, 2002). Beaulieu (2002) stated that literacy approaches for African American children must lead to children and youth who not only read well, but are also well read.

An understudied topic in the research literature on reading achievement is the relationship of reading approaches on African American students' reading abilities (Flowers, 2007). Therefore, it is important to study the teaching approaches of the individual literacy instructor in order to assess exactly how the teacher positively impacts student learning inside and outside the classroom. As one of the most important factors affecting reading achievement, the effective actions of the teacher should be identified and studied in order to expand the educational knowledge of how to increase the literacy skills of students as a whole.

An important question for anyone who wants to comprehend student achievement is what influence does an individual teacher have apart from what the school does? Some researchers may agree that the impact of decisions made by individual teachers may be far greater than the impact of decisions made at the school level (Marzano, 2003). For elementary school students, Wright, Horn, and Sanders (1997) found the most important factor affecting student learning was the teacher and the best means of improving education was to increase the effectiveness of the individual teacher. Thus, what is crucial is not merely the program used by the individual teacher, but how that teacher uses the

program to benefit his or her students. The hypothesis and the research questions (RQ) for the current study are as follows:

Hypothesis: The six teacher characteristics will have statistically significant relationships to eight elements of the AR program and ten teaching approaches teachers may have used to increase the reading achievement of African American students.

RQ1. Do six teacher characteristics have statistically significant relationships to the teachers' use of eight elements of the AR program that may increase African American students' reading scores?

RQ2. Do six teacher characteristics have statistically significant relationships to the teachers' use of ten approaches that may increase African American students' reading scores?

To answer these research questions, teachers completed an online research-based survey related to the research questions. These research questions were essential to the study. It is important to separate the AR program into its smallest components and examine those segments in order to gain an in-depth understanding of how the AR program works.

Definitions of Terms

The following operational definitions were adopted for this study. *African American children* are elementary students with one or both parents of African descent who generally describe themselves or are recognized by others as such. The children of immigrants of African descent, such as President Barack Obama during his school days, are included in this definition.

Teacher characteristics includes these six features

- the participant's highest level of educational attainment
- years of teaching experience
- years of teaching experience at current grade level
- number of AR workshops attended
- years of experience using AR
- current grade of students taught.

In this study, the term *Accelerated Reader (AR) program* refers to a system that tests students on books they have read. The program provides computerized reading comprehension quizzes on selected trade books to students who read at varying grade levels. Students immediately receive their quiz results after quizzes are completed.

Elements are the eight components of a teacher's typical administration of the AR program. The Standardized Test for Assessment of Reading (STAR) is a unit of the AR program. Students complete a computerized vocabulary test of five to 20 minutes which uses a cloze procedure to obtain a grade level reading assessment.

The elements are whether

- the AR program is used school-wide
- the school or district encourages use of the AR program
- AR is part of the school improvement plan
- the teacher's reading program is solely comprised of AR
- the STAR assessment is administered
- the teacher shares the STAR score with the student

- students are allowed to retake a STAR test
- the teacher shares the average STAR score for the entire class.

Approaches are the ten methods or activities teachers may use with their students to increase their students' reading achievement as the students utilize the AR program.

The teaching approaches are

- contacting parents to share AR or STAR reading scores
- holding teacher-student conferences regarding AR progress
- implementing rewards when students reach AR targets
- level of school library support for AR
- assisting in AR book selection in school library
- maintaining a classroom library
- allowing students to take books home
- giving booktalks
- promoting books with African American characters
- promoting books with African American authors

A clear understanding of the AR program rests on comprehension of its smallest components. Thus, it is important to understand each part of the AR program to perceive its entire function.

Significance of the Study

As an English teacher, I worked in a middle school of African American students where the AR program was successfully used to increase the students' reading scores above the city and state averages. The actions of the English teachers fueled these high scores, yet nowhere in the AR literature did I find the characteristics or actions of the teachers to be considered as an important or even necessary part of the AR program. This study is needed to identify the elements and approaches used by teachers of African American students who use the AR program to increase their students' reading achievement scores. It is important to the field of literacy because no study exists that even considers the actions of the teachers when they utilize the AR program with their students. Though the AR program is no longer being used in many school districts, the approaches of the teachers ought to be examined and studied before the program is judged as ineffective.

There is a need for studies regarding the effectiveness of the AR program (Thompson, Madhuri, & Taylor, 2008). Research is required to support the development of appropriate approaches required for African American students to become proficient readers (Flowers, 2007). I witnessed that the teachers were functioning as far more than monitors of the AR program yet no AR study had mentioned nor measured the role or actions of the teachers. As a researcher, I wanted to bring the role and actions of the instructor into the discussion of the effectiveness of the AR program.

I had observed the powerfully positive impact teachers' actions had on African American students reading scores at a middle school. The teachers' success needed to be researched and if possible at some later date, replicated to determine if they would have a

similarly positive impact on African American students at different grade levels and in other educational contexts. Due to the persistence of a gap in the reading achievement of African American students, effective reading approaches are needed. It is important to understand the small parts of the AR program in order to comprehend the whole program. This dissertation is organized to closely examine each relevant AR teacher characteristic, element, and approach.

Organization of Dissertation

As a doctoral student, I have found much research on the reading achievement gap regarding African American students, and very little on successful techniques to reduce or eliminate that gap. Though AR is not a flawless program, to a teacher looking for a way to raise her African American students' reading test scores, it can be an effective option. Since I was and am that teacher, I wondered which teacher characteristics, which elements of the AR program, and which approaches might help students' reading scores increase when the AR program was being utilized.

This descriptive study purports to increase knowledge and produce information which may be of interest to policy makers and educators. Descriptive research makes careful descriptions of educational phenomena (Gall, Gall, & Borg, 2007). Chapter Two consists of a review of research findings regarding the reading achievement of African American students, the AR program, and the individual teacher plus related studies. Chapter Three describes the setting, participants, the survey and its validation, plus survey standards, procedures, and a data analysis of the study. The results of the overall relationships between the six teacher characteristics and both the eight elements of the

AR program plus the ten approaches the participants may have used to increase their students' reading achievement scores are examined in Chapter Four. In Chapter Five, I discuss the implications of the findings, the study's limitations, directions for future research, and conclusions.

CHAPTER 2

LITERATURE REVIEW

The Black-White achievement gap, which can be defined as the persistent gap in academic achievement between Black students and White students (Rothstein, 2004), has long been an issue of concern in education. Narrowing the gap in reading was part of my duties as an instructor. As an English teacher, I watched my African American students' reading scores rise when I used the Accelerated Reader (AR) program with them on a regular basis. I also noticed each English teacher used different approaches with his or her students – some had a classroom library, others allowed students to retake STAR tests, and a few diligently awarded prizes for student reading achievement. I knew which elements of the AR program I preferred and the approaches I deemed effective. Though the AR program limited the role of the AR teacher to being a monitor (Malette, Henk, & Melnick, 2004), I witnessed teachers using AR in a much more expansive manner. I wanted to know which elements of the AR program and which approaches other AR teachers used. What were the characteristics of these teachers who used AR in the manner they found beneficial to the African American children they instructed? How did these teachers' characteristics relate to the elements and approaches they used? Based on my professional experiences, I knew that participation in AR could improve African American students' reading scores; but I wanted to closely investigate how other teachers utilized AR.

This chapter reviews research derived from the fields of the reading achievement of African American students and the AR program research emphasizes studies of the

program at the elementary and middle school levels with a focus on the motivation component of the AR program. Central to this study are the individual teacher and related studies. The chapter ends with a discussion about the individual teacher.

The Achievement Gap and African American Students

Multiple researchers have attempted to uncover the cause of the Black-White achievement gap. Ogbu (1992) noted the tendency of minority children in contemporary urban societies to perform poorly when compared to dominant groups was worldwide. He classified minority groups as autonomous, voluntary (immigrant), and involuntary (non-immigrant) and posited the involuntary minorities have the most difficulties with school adjustment and academic achievement. Examples of involuntary minorities include Native Americans, Native Hawaiians and African Americans. Ogbu (2004) also indicated that society, school, and the burden of “acting White” contributed to the low school performance of African American students.

In the 1990s, the concept of academic disidentification was used to explain the achievement gap and is still in use today. Steele (1992) attributed African American students’ lack of academic achievement to a pervasive devaluation of Blacks in American society which he termed stigma. In his study of 40 White and African American college students, Steele (1995, 1997) found stereotype threat, which is the social-psychological fear that arises when a person is doing something for which a negative stereotype about that person’s group applies, can be disruptive enough to impair the African American students’ intellectual performance on tests. Stereotype threat can lead to academic disidentification, in which a person’s identification with school is broken. Steele (1992)

defined disidentification as the lack of a relationship between academic self-esteem and overall self-esteem and recognized identification with academics as important to academic success. The social psychologist concluded the problem of Black underachievement was due to social psychology, and was thus amenable to change.

The challenge may be to keep African American students' self-esteem high while simultaneously closing the gap. Osborne (1995, 1997), in studies based on data from the National Education Longitudinal Study of 24,599 eighth graders, found although African American students had the highest self-esteem, African American boys remained the most disidentified with academics through the twelfth grade when compared to White and Hispanic students, and African American girls were also academically disidentified, yet at a lower level.

One may wonder whether the achievement gap is due to internal or environmental factors. African American children consistently have the highest IQs of all ethnicities when they are newborns and they maintain this lead until age two, when vocabulary-based testing is introduced (Delpit, 2012). However, Black children begin school with fewer academic skills than White children (Magnuson & Duncan, 1998; Phillips, Crouse, & Ralph, 1998).

Yet, Phillips et al., (1998), concluded schools are not major contributors to the achievement gap that develops between Whites and Blacks from the first grade through the twelfth grade. They determined neither traditional socioeconomic differences nor differences between the schools of Black and White students sufficiently explained why

African American children learned less than their White peers. What, then, is the source of the gap?

Perhaps the most accurate answer has been found. In a study that sought to draw attention to the needs and strengths of African American third grade boys, Fantuzzo, LeBoeuf, Rouse, and Chen (2012) found African American boys were 3.6 times more likely to experience the highest level of risk (child maltreatment, low maternal education at birth, homelessness, inadequate prenatal care, preterm/low birth weight and lead exposure) than Caucasian boys. The Black boys performed significantly worse on reading achievement tests at the end of third grade if they had been maltreated or born to a mother who did not graduate from high school. Also, inadequate prenatal care was related to poor reading achievement. Their findings indicated that 40% of the Black boys in the study were exposed to more than one risk and emphasized not all African American boys experienced that same amount of risk. In Anderson's (2012) comments on Fantuzzo et al.'s study, he stated that the achievement gap was somewhat of a risk gap. Though no similar research on risk and its effect on the academic achievement of African American girls has yet been located, the components of risk (child maltreatment, low maternal education at birth, homelessness, inadequate prenatal care, preterm/low birth weight and lead exposure) and their debilitating relationship to the academic achievement of the study's participants, point to an environmental, and thus malleable, cause of the Black-White achievement gap.

Researchers have continued to search for the cause of the gap. In their explanation of why the achievement gap increases as children move through school, Fryer and Levitt

(2004) suggested African American students' test scores fall because they attend worse schools, they may grow up in environments that are not conducive to high academic achievement, they may suffer worse from summer setbacks, and biased expectations from teachers could cause them to lose ground.

The Black-White achievement gap has multiple manifestations, of which reading is one. The cause appears to be environmental according to Fantuzzo et al.'s (2012) study. Thus, the gap can be narrowed via the use of effective programs that can increase reading achievement in African American children. Even during the later educational years, African American children's reading scores can soar when a concerned teacher implements powerful approaches that work. Though Phillips et al. (1998) concluded schools are not major contributors to the gap, schools can still provide solutions that narrow the gap.

Reading Achievement of African American Students

Differences in reading achievement at the elementary level abound between Caucasian and African American students. Baker and Wigfield (1999) found African American fifth and sixth graders generally reported more positive reading motivation than White students yet Guthrie, Coddington, and Wigfield (2009) found African American fifth graders separated their interests and enjoyments from reading significantly more than Caucasian students did. Still, Magnuson and Duncan (2006) suggested family socioeconomic environments in which White and Black children were raised may account for at least some of the school-entry achievement gaps.

African American children are deeply affected by the illustrations and text they find in children's books. In Bell and Clark's (1998) study of 109 first, second, third, and fourth grade African American elementary school students, the researchers found the children's recall of story events was better when stories depicted Black characters and African American themes. They suggested African American children process information more efficiently when their sociocultural experiences are incorporated in the literature the children read. They also determined the children's reading comprehension was significantly more efficient for stories depicting both African American imagery and culturally related themes than for stories that depicted both Euro-American imagery and culturally distant themes. Bell and Clark concluded culturally relevant reading material should be included in the American school system because of the culturally diverse student population. Yet, culturally relevant literature is not the only factor that may affect the reading achievement of African American children.

Parents also can affect the reading of their children. In terms of culture, Harris and Graves (2010) found parental transmission of cultural capital had a beneficial impact on the reading achievement of African American fifth grade boys; specifically, visiting museums, libraries and zoos. However, student participation in music, art, or dance lessons did not positively impact reading achievement. Diller (1999) a White instructor of African American elementary students, insisted instructors must realize culture is a viable teaching tool, and that teachers must seek first to understand a child's cultural background, even by using children's literature as a guide to their particular culture.

Is there an actual difference between the causes of the achievement gap in Black boys and Black girls? McMillian, Frierson, and Campbell (2011) queried whether elementary and middle school African American boys were more prone to low achievement and academic disidentification than African American girls. Their study collected data after the 113 participants' third and seventh years of education. Contrary to Osborne's (1995, 1997) studies, the researchers found no gender differences in participants' reading achievement at age eight or twelve and no evidence that supported gender differences in the relationship between academic achievement and academic disidentification.

Why is the gap widening during the middle school years? The middle school model is unique from elementary and high school in its emphasis on nurturing students both developmentally and intellectually (Thandiwe, 2002). Schools are failing to teach even basic reading skills to large numbers of African American students who are preparing to leave fourth grade, according to Beaulieu (2002). She stated that by middle school, four outcomes await struggling African American readers:

- They continue to slip further behind their classmates and may disconnect from learning
- They get referred to special education programs
- Many children are retained
- Behavior problems escalate, students get suspended, and may be expelled.

What about efforts being made to increase the reading achievement of Black students in middle school? Beaulieu concluded that in most cases, appropriate

interventions or remedial efforts are nonexistent or ineffective. During the middle school years, the achievement gap between African American students and their White and Asian peers expands and becomes set, which leaves many African American students behind for the remainder of their school years. However, when African American students are given access to appropriate support, the achievement gap narrows (Thandiwe, 2002).

Do expectations of racism affect Black students in middle school? In a longitudinal study that included African American seventh and eighth graders, Eccles, Wong, and Peck (2006) found anticipated future racial discrimination could affect the academic engagement of African American adolescents by leading to increased engagement in some students and to disengagement in others. Daily experiences of racial discrimination negatively affected their academic motivation and achievement; however, negative effects were substantially reduced in African American youth who had a strongly positive culturally connected racial identity.

A concerned instructor who provides literature that reflects the African American child's culture and values can improve that child's life. Tatum (2008) asserted literacy instruction could serve as a mechanism to improve society if instructors paid attention to the varied needs of adolescents living in high-poverty communities. In his study of low-level reading African American middle school students, Tatum (2000) found the combination of culturally relevant literature plus explicit approach and skill instruction resulted in 25 of the 29 students' promotion in the Chicago school system.

Thus, exposure to racism may wound some children but strengthen others, depending on the ideas to which the child has been exposed. In their study of 390 African

American middle and high school students in grades seven to ten, Smalls, White, Chavous and Sellers (2007) found students who reported more racial discrimination indicated lower school engagement whereas students who possessed minority ideology and identified with other minority groups showed positive academic engagement outcomes.

The narrowing of the gap in reading indicates progress has been made. The National Assessment of Educational Progress 2012 *Trends in Academic Progress* results indicated a narrowing of the Black-White test score gap in reading since the 1970s; specifically, the average score for Black students was 36 points higher in 2012 than in 1971, due primarily to the implementation of civil rights policies, the War on Poverty and socioeconomic convergence (Grissmer, Flanagan, & Williamson, 1998; Hedges & Nowell, 1998).

The gap, whether caused by the burden of “acting White” (Ogbu, 2004), academic disidentification (Osborne, 1995, 1997; Steele, 1992), or a high level of risk (Fantuzzo et al., 2012), can be narrowed. For some African American students, the AR program has provided experiences that increased their reading achievement and reduced the gap.

The Accelerated Reader Program

The AR program is usually implemented with elementary schoolchildren. It is no surprise that most of the research on AR is focused on the elementary level (Huang, 2012). At the elementary level, AR may take place during a daily period of uninterrupted silent reading from 20 to 60 minutes (Schmidt, 2008; Souto-Manning, 2010). Edmunds and Tancock (2002) found in a study of predominantly free and reduced lunch students

who were approximately 60% White and 40% Black that use of incentives alone in a AR-based study did not increase fourth grade children's reading motivation and more research is needed on other types of activities that may increase motivation to read.

Putman (2005) determined in his study of three groups of primarily Caucasian fourth graders that students who accumulated the largest number of points saw an increase in self-efficacy scores, and students with the lowest number of points also scored the lowest on measures of self-efficacy and the value of reading. He also found all three groups exhibited a decline in the value of reading, which he attributed to the students' view of points as an extrinsic motivator.

AR researchers tend to conclude negative findings regarding the program. In their study of 235 fourth and fifth graders in two adjacent school districts of low-to-moderate family incomes, Mallette et al. (2004) found AR positively influenced student attitudes toward academic reading but not recreational reading. However, Greer (2003), an elementary school librarian, responded to the following objections against AR:

- AR limits access to books
 - Limit the number of AR books a student can check out at a time and encourage reading of non-AR books
- Students cheat on AR tests
 - Students also cheat on non-AR tests
- Student must read in their Zone of Proximal Development (ZPD, or reading range)

- If a student shows interest in a higher-level book than is indicated by his or her ZPD, let him or her read it.

The Accelerated Reader Program at the Middle School Level

Though most AR research is at the elementary school level, research can be found in the upper grades. Relatively few studies have considered the use of AR at the middle school level (Huang, 2012), possibly because students show a decline in time spent reading during the middle school years (Wilson & Casey, 2007). Ivey and Broaddus (2001) stated middle school reading instruction is full of mixed messages and inconsistency because students are expected to become independent readers, yet the students have limited opportunities to become independent readers. Sadly, Allington (2011) concluded many middle school students do not receive any effective reading instruction.

Some researchers find the AR program to be detrimental. In her study of 30 diverse yet majority Caucasian middle school students, Huang (2012) found students felt the AR book selections hindered the joy of reading, the amount of time required for students to spend on the AR program inhibited their motivation to read, and AR decreased positive social interaction with peers while also increasing competition. She suggested students need to be given choices about their reading, and students should have ownership and self-regulation of their reading experiences to promote reading motivation.

The Motivation Component of the Accelerated Reader Program

A distinguishing facet of the AR program is its motivation aspect of rewarding students for passing quizzes on AR books they have completed. This approach includes the assumptions that motivation is a one-dimensional concept and all children are motivated by tangible rewards. Wigfield and Guthrie (1997) in their study of children's motivation for reading concluded reading motivation is multifaceted. They also determined that children who read more are likely to continue to read; however, children who read less are not as likely to increase their reading.

To encourage more reading by all students, the AR program includes a reward component. Although in some school systems, high-scoring students are rewarded with skating parties, recognition buttons or stores for students to shop for rewards, not all school systems reward students for achieving AR points. Some schools use points as the reward, or translate points into grades (McCarthy, 2003). According to Topping, Samuels and Paul (2008), the points are determined thus:

$$\text{the AR Point Value} = \frac{(\text{Words in Book}) \times (10 + \text{Grade Level of Book})}{100,000}$$

For example, if a student read *The Sun Also Rises* and passed the quiz for the 70,000-word book written at approximately the 4.4 grade level, that child would receive 10 points ("Parents' Guide to Accelerated Reader," 2015). The books included in the AR program may not be the high quality books a school librarian would have selected, and they are not always age appropriate (McCarthy, 2003). Persinger (2001) admitted that she was troubled by the limited choice of reading materials in the AR collection and suggested more nonfiction and a greater variety of fiction were crucial.

Researchers have revealed positive and negative aspects of the AR program. A beneficial aspect of AR is some schools set aside Sustained Silent Reading (SSR) time each day to support students' independent reading (McCarthy, 2003). A criticism of the AR point system is that a low-ability student who is working hard will not achieve a point score equivalent to a high-ability student (Biggers, 2001). Another concern is how the AR program restricts students to their reading level because students may have more interest in titles that are outside their reading level (or ZPD), and could possibly master the content because of their motivation to read (McCarthy).

For many teachers of African American students, not only is the AR program the only tool they have to increase students' reading achievement scores, but also AR books may be the only books made available for students to read in schools without media centers or libraries. Yet, teachers and schools cannot rely on AR alone, insisted Prince (1998). Teachers must use real literature, combined with meaningful reading and writing activities combined with placing a high value on reading along with setting good examples as lovers of reading. Educators must work hard to involve parents in setting good examples as readers and supporters of reading. Prince concluded that when educators implement practices detrimental to the learning process, it is because they are not fully aware of the research available to support sound practices.

As an English teacher, I received no training on how to use the AR program with my students in the urban district where I taught. Marshall and Campbell (2006) indicated that although AR can be helpful when used as part of a comprehensive reading program with a well-trained teacher, when the AR program is used in isolation or without teacher

understanding of the place of AR in a balanced plan for reading, the potential for misuse exists.

Though researchers tend to support or disparage the AR program, few offer suggestions to make it better. Poock (1998) indicated that the AR program was not the final answer in improving students' reading abilities; she declared that there were many misuses of the program. Poock noted the program made many students feel successful and improved their reading abilities, but higher order thinking skills were not probed, nor did students learn to love literature. She emphasized that the AR program can give the message that all there is to reading is taking tests on a computer. Since the prizes awarded for points are often simple toys that have no relation to reading, Poock mentioned the reward methods imply that if students read books and take tests, they can earn insignificant prizes. She summarized that to use AR to its best potential

- AR books should not be separate from other books in the media center
- Reading should be modeled and emphasized by teachers to be enjoyable, not test-driven
- Students ought to be rewarded for their reading efforts with reading, that is, by receiving books as rewards
- The AR program must be regarded as just another tool; it is not the basis of the reading curriculum.

Among teachers and researchers, there is a variety of AR detractors. Brisco (2003) stated that since most of the 17 people who comprised the AR Advisory Board were administrators, consultants, and test developers, the company's interest was in changing

student behavior rather than improving students' thinking and reading skills. She also opined that the AR program is essentially a behavior modification program that develops no higher-level thinking skills among readers. Without thoughtful review of literature, Brisco implied that AR creates mediocre readers who cannot successfully think beyond the literal written word and are unable to apply insight and creativity to what they read. She stated the AR program should be discontinued.

The criticism of AR has not stopped. Krashen (2003) indicated the AR program differs from free reading only because it adds tests and rewards. If there is no evidence providing support for the use of tests and rewards, he stated there is no evidence in support of the AR program. Of the four aspects of the AR program which are access to books, time devoted to reading, tests, and rewards, Krashen concluded that only access to books and time devoted to reading are supported by research. He also suggested that the AR program may have long-term harmful effects. Although the AR program has been widely implemented, Allington (2006) stated there is almost no published research available that supports its use other than newsletters or privately produced in-house magazines that offer testimonies, case studies, and reports of achievement effects.

Yet, AR may be better than no reading program at all. In Moyers and Williams' (2011) study of the AR program at a New Jersey high school, outcomes included an increase in the students' free reading, a boost in library circulation, plus more student interaction with the school librarian. The researchers determined AR is not the definitive answer for improving student reading, but it is one component of a successfully

implemented literacy program at the school and students did develop an intrinsic motivation for reading.

Still, AR research includes a flurry of negativity. In his book *Readicide: How Schools are Killing Reading and What You Can Do About It*, Gallagher (2009) stated that many teachers like the AR program because they see students accomplish a significant amount of reading, but teachers do not perceive extrinsic rewards often lead to demotivating students after they have left the classroom. Brisco (2003) emphasized the AR program should be placed in the Reading Recovery classroom to assess those who need intensive reading practice in order to catch up with their peers. Brisco (2003) also stated the AR program has become an addiction of points and prizes that no one seems to know how to overcome.

Is the AR program beneficial or detrimental to African American students?

Melton et al. (2004), in their study of the AR program on fifth grade students' reading achievement growth, found of the 270 African American students and the 322 Caucasian students who participated in the study, the African Americans in the AR group scored significantly lower than the African Americans in the non-AR group. The researchers used a pretest-posttest group design as measured by the Terra Nova standardized reading achievement test to determine whether a significant difference could be found in the students' reading achievement reading growth. Though the African Americans in the experimental group scored significantly lower than the African Americans in the control group, the African Americans in the experimental group also scored significantly lower than the Caucasians in the control group. Also, the African Americans in the control

group did not rank significantly lower than the Caucasians in the control group. The researchers did not attempt to explain why the reading achievement growth scores of the African American students in the experimental group were significantly lower than the other groups. Thus, the study's results are inconclusive regarding AR and African American children.

Yet, more researchers have reached negative conclusions regarding the AR program. The cost of AR software was approximately \$4.00 a student per year with a one-time school price of \$1,500 (What Works Clearinghouse, 2010); one may wonder if AR is too expensive for today's elementary schools. Souto-Manning (2010) indicated that current concerns regarding AR include:

- lack of choice in book selection
- disregard for the readers' worlds and experiences
- absence of collective reading
- absence of collective discussion.

Souto-Manning also stated AR uses surveillance techniques that are misaligned with what young readers need to do and know about books. A second grade teacher, whose students were largely African American and Hispanic, considered the AR program negatively affected the children's perceptions of themselves as literate beings, honored White middle class literacies, and did not recognize the multilingual backgrounds of students. She also mentioned that in her school, getting rid of the AR program was not an option.

Research has continued to find negative results in the use of the AR program. Pavonetti, Brimmer, and Ciplewski (2003) found middle school students who were not

exposed to the AR program in elementary school read more books than students who had been exposed to the AR program during elementary school. Chenoweth (2001) implied that participants in an AR program might read more books than nonparticipants; however, when the AR program ended, the participants' reading of multiple books also ended.

As a researcher, I cannot expect research on the AR program to provide reasons as to why the AR program as it exists should continue to be used as a tool to increase the reading achievement of African American children. However, as a classroom instructor, I have used the program with all of its flaws to increase the reading achievement scores of African American children, in addition to my working in a school of African American children with reading scores above the state average due to the teachers' diligent use of the AR program. Thus, the following section examines six characteristics of teachers who used AR.

The Six Teacher Characteristics

The six teacher characteristics in this study were:

- highest level of educational attainment
- years of teaching experience
- years of teaching experience at current grade level
- number of AR workshops attended
- years of experience using AR
- current grade of students taught

It appears difficult for researchers to determine whether the educational attainment of teachers increases their students' reading achievement. Wayne and Youngs

(2003) could not report conclusive findings regarding advanced degrees and improved student achievement in the subject area of English. Badgett, Decman, and Carman (2014) determined teacher graduate training has limited positive impact on student reading achievement.

Yet, research findings may produce conflicting results. Turner (1990) reviewed multiple studies from the 1970s and 1980s that indicated as the percentage of teachers with master's degrees increased in specific school districts, student achievement in reading increased. Turner emphasized that the effects of a salary incentive was embedded with the master's degree in the relationship to achievement. In Knapp, McNergney, Herbert, and York's (1990) study which analyzed the impact of advanced study on the effectiveness of teaching, the researchers concluded the relationship between graduate study and teaching success is modest. Still, this study may uncover useful information regarding teachers' graduate preparation and methods that may increase students' reading scores.

The same challenges appear when researchers sought a link between teachers' years of teaching experience and their students' achievement. In their study, Palardy and Rumberger (2008) noted comprehensive reviews of the literature on teachers' experience and student achievement produced inconsistent conclusions. Their study, which utilized first grade data from the Early Childhood Longitudinal Study, found that compared with teachers' instructional practices, background qualifications such as teachers' experience has less robust associations with student achievement.

One study was able to tease out two significant links between teacher experience and student achievement. In Murnane and Phillips' (1981) study, the researchers stated three factors influence whether teachers may become more effective as they gain experience. They defined the factors as:

- Learning by doing, that is, teachers learn to teach by teaching
- Vintage effects which the researchers define as differences in the abilities of teachers hired by school districts at various points in time
- Selection effects which are defined as differences between teachers of a certain experience level who chose to remain in the classroom versus those who chose to leave teaching.

Taking a different stance, the researchers Murnane and Phillips (1981) stated the inconsistencies in the literature concerning teaching experience and student achievement are due to vintage and selection effects. They concluded it is impossible to examine the role of selection effects, but not the roles of learning by doing and vintage effects. The hypothesis of their study of Black teachers hired from the early 1940s to the early 1970s to teach Black students in a large urban district was explicit analysis of vintage effects would increase the estimated impact of learning by doing. The result of their study was the children taught by a teacher with five years' experience made three to four extra months of progress acquiring reading skills than children taught by a first-year teacher. They concluded learning by doing and vintage effects are a significant determinant of the quality of the teaching staff in a large urban district. With a more general approach, in researchers Munoz and Chang's (2007) study of 52 ninth grade high school teachers, the

researchers' goal was to consider the links between teachers' education, years of experience, and race on student achievement over time. Their findings indicated teachers' education, years of experience, and race did not significantly affect student achievement.

Does the race of the teacher significantly affect student achievement? Dee (2004) found own-race teachers improved student achievement in the early grades and concluded recruiting minority teachers could generate achievement gains among minority students. Ehrenberg and Brewer (1995) determined in their study that when teacher characteristics other than race were held constant, Black teachers were associated with higher gain scores for Black high school students, but with lower gain scores for White elementary and secondary students. However, when Ehrenberg, Goldhaber, & Brewer (1995) studied data from the 1988 National Education Longitudinal Study (NELS), the researchers concluded for the most part, the teacher characteristics of race, gender, and ethnicity did not affect how much students learned.

The inconclusive results of some researchers which conflicted with the findings of other researchers need not be a source of frustration for me but rather an invitation to carefully structure my study. Although my study of six teacher characteristics may result in some inconclusive findings, it is more important for me to learn if there are statistically significant relationships between the teacher characteristics and the eight elements of the AR program.

Eight Elements of the AR Program

The eight elements of the AR program in this study were whether

- the AR program is used school-wide
- the school or district encourages use of the AR program
- AR is part of the school improvement plan
- the teacher's reading program is solely comprised of AR
- the STAR assessment is administered
- the teacher shares the STAR score with the student
- students are allowed to retake a STAR test
- the teacher shares the average STAR score for the entire class.

The atmosphere of the school usually has a strong effect on the teachers who work there. Positive school climate is associated with increased student academic achievement (Thapa, Cohen, Guffey, & Higgins-D'Alessandro, 2013). In Sherblom, Marshall, and Sherblom's 2006 study that examined the relationship between school climate and reading achievement, the researchers found the teacher-staff's sense of school leadership was strongly related to reading achievement.

These eight elements are generally parts of the school environment or departmental policy that the teachers have little choice but to follow. However, the ten approaches are acts that are often the result of the teachers' preferences. In my classroom instruction, I found implementing these ten approaches as I used the AR program seemed to increase my students' reading achievement scores to increase. Thus, was there a statistically significant relationship between the six teacher characteristics and the ten approaches?

Ten Approaches that May Support African American Reading Achievement

The ten teaching approaches participants may have used to support the reading achievement of their African American students in this study were

- contacting parents to share AR or STAR reading scores
- holding teacher-student conferences regarding AR progress
- implementing rewards when students reach AR targets
- level of school library support for AR
- assisting in AR book selection in school library
- maintaining a classroom library
- allowing students to take books home
- giving booktalks
- promoting books with African American characters
- promoting books with African American authors

I found contacting parents to be a powerful motivator of my students, Parent involvement has been found not only to improve student achievement but also to produce significant long-term benefits such as better school attendance, reduced dropout rates, decreased delinquency, and lower pregnancy rates (Witherspoon, 2002). Furthermore, parent involvement is widely recognized as an important contributor to the academic success of African American students (Haynes, Comer, & Hamilton-Lee, 1989).

Why is parent contact important when one is teaching Black children? Hill and Craft (2003) found ethnic differences in parent-school involvement for African American and Euro-American families. They suggested parent involvement may improve student

achievement via the impact on the academic skills of African American children, whereas Euro-American parents may access more information regarding their children's school climate and educational activities. Yan (1999) determined despite disadvantaged home environments in a sample of African American families, African American parents demonstrated higher or equivalent levels of parent involvement than Euro-American parents did. Machart (1989) suggested frequent conferences create a stronger bond between teachers and their students.

As an English teacher, I realized the school library was essential to my students' reading success. Antrim and Beard (2010) found teacher-librarians play a major role in successful literacy programs. Their study determined teacher-librarians help lower-achieving students increase their reading achievement plus the students' reading attitudes and motivation benefited from positive interactions with the teacher-librarians. Since some school districts have eliminated the school librarian position, teachers often must serve as the students' sole librarian.

Each year, I tried to add new books to my classroom library. Sweet, Guthrie, and Ng (1998) in their study of elementary teachers' perceptions and student reading motivation found teachers realized that lower achieving students needed more choices in reading situations in order to continue their effort and attention. A teacher with a classroom library would immediately address this need for the students who view reading as challenging. Sweet, Guthrie, and Ng also noted that topic as a motivation for student readers became stronger across the grades. Guthrie (2000) suggested teachers who wish

to increase engaged reading in the classroom should make books available and give students choices about texts.

When I implemented AR every Friday, I began each class session with an AR book I had read, would enthusiastically wave around, and could wholeheartedly recommend to my classes. Cole (2007) stated: “Booktalking is a surefire way to get kids excited about books...you will soon have kids clamoring for the books you talk about” (p. 42). Chance and Lesesne (2012) indicated a booktalk is a brief advertisement for a book delivered in person to students by a teacher. Formats for booktalks may vary. They can include a plot summary, anecdote, theme or genre (Norton & Anfin, 2003). The purpose of the booktalk is to pique a student’s interest in a book (Young, 2003). During my booktalks, that is what I tried to do!

Since Allington (2003) concluded that children from lower-income families have less access to books than students from higher income families, permitting students to borrow classroom books may or may not be a privilege extended to students. Kindig (2006) also mentioned connecting with students’ previous experiences as an effective method to increase student interest.

When I taught Hispanic students in a bilingual department, I did not realize how ignorant I was of my students’ culture until they told me the Mexican singer Selena died and I had no idea who she was. Non-African American teachers can have unintentional but detrimental effects on African American students when the teachers are unaware of how their own beliefs and values affect their students’ classroom learning (McMillon & Edwards, 2000). In her groundbreaking study of self-fulfilling prophecies of 100 White

female undergraduates in a laboratory teaching situation, Taylor (1979) found White male students received the most favorable treatment and Black male students most unfavorable treatment. Also, when teachers intentionally fill their classrooms with books tailored to their students' interests, the teachers empower their students as learners (Hall, Hedrick, & Williams, 2014).

As an African American teacher who had instructed Hispanic students, I had made it a priority to read a variety of novels written by Puerto Rican and Mexican authors so I could introduce my students to literature that reflected their culture. Brinson (2009) indicated the use of multicultural literature improves “children’s self-esteem, involvement and engagement, and contributes to the development of strong literacy skills” (p. 28). Identification of books by African American authors is important because books by White authors may unintentionally perpetuate racist stereotypes, while books by African American authors can reflect culturally accurate issues and experiences (Schafer, 1998). Tatum (2000) found using culturally relevant literature with low-level reading African American students engaged them, offset student resistance and apathy, plus provided opportunity for the students to develop deeper processing approaches through reading. Tatum (2006) concluded no literacy approach could close the achievement gap unless texts meaningful to African American adolescent males are at the core of the curriculum. Furthermore, all students should be able to perceive global diversity as reality (Webster & Walters, 2008).

Yet, nothing happens in the classroom that is devoid of a teacher. Although the requirements of teachers have changed over the years, the necessity of a teacher remains

unchanged. The participants in this study are teachers who play the most important role in the classroom literacy instruction.

The Individual Teacher

In her study of highly effective elementary literacy teachers, Sanden (2014) noted the teachers

- maintained diverse classroom libraries that appealed to many interests and reading levels
- provided students with instruction on the importance of reading books on the appropriate level
- explained how to locate books that met the students' needs
- held planned and impromptu book conversations with groups of students and individual students
- directly monitored students' book choices
- viewed independent reading as a major, not a supplemental, part of the literacy program.

Sanden described the highly effective teacher as a committed and busy individual who rarely missed an opportunity to expand his or her students' literary abilities. It is crucial that the characteristics of these teachers are identified, recognized, and duplicated.

Classroom materials also play an important role in increasing reading achievement. A major concern is whether the teacher has interesting books available in

the classroom. Wilson and Casey (2007) stated that knowing which materials to place in a teacher's classroom during silent reading time is the bottom line when influencing students' attitudes toward reading. The researchers also posited that it is the responsibility of all educators to find a reading niche for each student in the classroom.

Poor children are more dependent on the effectiveness of the individual teacher. Delpit (2012) indicated children from more privileged backgrounds can overcome the effects of a poor teacher, but poor children are more dependent on teachers to instruct them on what they need to be successful. Marzano (2003) identified instructional approaches as one of the major teacher-level components that most impact student achievement.

Yet the AR literature is silent on which instructional approaches teachers should use when they effectively implement the AR program with their students. Biggers (2001) stated there is no mention of the teacher's role in providing literacy instruction of reading approaches in AR, which is not an instructional program. The teacher's role is essentially that of a monitor, posited Mallette et al., (2004). If a teacher implements AR and he or she is more than a monitor, the main question in this study is how do that teacher's characteristics affect the elements of the AR program and the approaches that teacher uses?

Although AR was intended as a supplementary and complementary resource (Guastello, 2002), for many teachers of African American students, it may be the only available tool the teachers can use to increase the reading achievement of their students. Some schools have made AR their complete reading program, even though the

developers caution against the use of AR as an all-encompassing application (Mallette et al., 2004). Although Allington (2013, p. 520) stated that fidelity “to flawed core reading programs” is the direction of some schools with low-income students, discovering the role of a teacher’s practices may prove to be a promising endeavor as researchers explore the specific approaches used by classroom teachers as they attempt to increase African American students’ reading skills (Flowers & Flowers, 2008).

Summary

Researchers have attributed the possible causes of the reading achievement gap between White and Black students to external causes such as African American children’s exposure to more risk factors which may hinder their ability to learn reading. Effective approaches are needed to increase the reading achievement of African American students.

The AR program can be an effective approach that can increase the reading achievement of African American students. Some researchers have found it to be harmful to students because AR focuses only on reading comprehension while ignoring higher order thinking skills and group discussions. Still, the AR program is the only tool some teachers have to increase their students’ reading achievement, and it can help increase students’ reading scores.

The use of culturally relevant literature is essential to the reading instruction of African American children. Parent contact can also serve as an important factor related to increasing the reading achievement of Black children.

A teacher’s instructional approaches can powerfully impact reading achievement. Thus, despite the challenges of the AR program, I believe statistically significant

relationships can be determined when six teachers' characteristics are compared to eight AR elements and ten teaching approaches that teachers may have used to increase the reading achievement of African American students.

CHAPTER 3

METHODS

Overview and Research Questions

In this chapter, the independent variables of the six teacher characteristics and the dependent variables of the eight elements and the ten teaching approaches are described. A description of the setting and participants of the study, plus a description of the research-based internet survey, are included. The standards used to develop the survey are explained. Procedures utilized in this study include site selection and the process followed for site access, the process for recruiting participants, the process that enabled participants to complete the survey, and the process for receiving the survey data. Procedures utilized in this study include the process for recruiting participants, the process for taking the survey, and the process for receiving survey data.

Although the Accelerated Reader (AR) program was created to address students' reading difficulties, many researchers have documented its shortcomings. Still, it has been recognized as the most popular reading program in America (Biggers, 2001). The AR program was designed to be a supplemental activity for all students, but in some districts, it is the only tool besides the availability of interesting and culturally relevant reading material and the teachers' own expertise that teachers can use to address reading difficulties in African American students in grades one through twelve. This study determined whether the six characteristics of teachers who may have abandoned their prescribed role as AR monitors (Mallette et al., 2004) had a significant relationship with

either eight AR elements or ten teaching approaches those teachers may have used when they implemented the AR program with their African American students.

This study was based on 25 teacher participant responses to a research-based internet survey developed by me. Its purpose was to determine if six independent variables of the teacher characteristics had a statistically significant relationship with the dependent variables of (A) eight elements of the AR program and (B) ten teaching approaches teachers may have used to increase their students' reading achievement scores. That research (cited in Chapter Two) has been found to increase the reading achievement of their African American students. Within the AR program, the students' reading achievement scores are measured by the STAR program, which is a computerized vocabulary test of five to 20 minutes that uses a cloze procedure to obtain a grade level reading assessment. The data collection instrument was a 42-question research-based survey that teacher participants completed.

Six Teacher Characteristics

The six teacher characteristics in this study were:

- highest level of educational attainment
- years of teaching experience
- years of teaching experience at current grade level
- number of AR workshops attended
- years of experience using AR
- current grade of students taught

Research involving advanced degrees and improved student achievement is inconclusive; yet, it was important to determine if the participants' level of education and years of teaching experience were significant in this study. The number of AR workshops participants attended may have served either as a measure of interest in professional development and/or in the AR program itself. Whether teachers who taught primary-level students or older children when using AR was considered in that it could reveal which elements or teaching approaches were more in use at various grade levels.

Eight Elements of the AR Program

The eight elements of the AR program in this study were whether or to what extent

- the AR program is used school-wide
- the school or district encourages use of the AR program
- AR is part of the school improvement plan
- the teacher's reading program is solely comprised of AR
- the STAR assessment is administered
- the participant shares the STAR score with the students
- students are allowed to retake a STAR test
- the teacher shares the average STAR score for the entire class

These eight elements are generally part of the AR program itself. The extent to which these elements are manifested generally depend not on the teacher who uses AR but the school wherein AR is used. Unlike the ten approaches, the manifestation of most of the elements do not depend on the preferences of the individual instructor, but usually

are a matter of district, school, or department policy, such as the decision to pay for the STAR component (which measures each student's reading grade level) of the AR program.

Ten Teaching Approaches to Support African American Reading Achievement

The ten approaches teachers may have used to support the reading achievement of their African American students in this study were based on activities I used to increase my students' STAR reading achievement scores (cited in Chapter One). They were whether or to what extent

- contacting parents to share AR or STAR reading scores
- holding teacher-student conferences regarding AR progress
- implementing rewards when students reach AR targets
- level of school library support for AR
- assisting in AR book selection in school library
- maintaining a classroom library
- allowing students to take books home
- giving booktalks
- promoting books with African American characters
- promoting books with African American authors

As described in Chapter Two, an important contributor to the academic success of African American students is parent involvement. Teacher librarians also help increase student achievement, in addition to their providing students with more literary choices (Antrim & Beard, 2010). Booktalks can excite students and encourage independent time spent reading outside of school. The use of multicultural literature can contribute to the development of students' literacy skills. African American students tend to benefit from exposure to books that reflect their images and culture. These ten approaches may reflect the preferences of the individual AR teacher.

Research Questions

- RQ1. Do six teacher characteristics have statistically significant relationships to the teachers' use of eight elements of the AR program that may increase African American students' reading scores?
- RQ2. Do six teacher characteristics have statistically significant relationships to the teachers' use of ten approaches that may increase African American students' reading scores?

Setting and Participants

Setting

The target population in the study was language arts or English teachers who reported on the survey question (D6) that they taught grades three through six. However, in the comments, one said he or she taught kindergarten and another participant said he or she taught first grade. A third participant stated in the comments that he or she taught second grade. These comments were initially ignored but a discrepancy had been created

by discounting these comments about the grades the participants taught. Thus, the participants reportedly taught kindergarten through sixth grade. (It is unknown by me whether they were certified to teach these grades). They were employed at three elementary schools in a Midwestern public school district located in a city with a population of approximately 50,000 with a majority African American population of approximately 46% when compared to other groups. The city once was thriving due to local industries, but a general decline over the past fifty years in the surrounding manufacturing community brought about financial decline in the city from middle class to lower middle class.

In the public-school district, 83% of the students receive free lunch and approximately 64% of the students are African American. The district is comprised of approximately 8,000 students and 500 staff members. Nine elementary schools, three high schools and two middle schools provided educational services to the city's residents.

Participants and Selection

The participants worked at three different elementary schools and voluntarily responded to the online survey. Due to confidentiality and privacy stipulations, it is impossible to determine which participants were on staff at the three schools or the percentage of total staff at the three locations.

Thirty-two percent of the participants had bachelors' degrees, fifty-six percent had masters' degrees, and twelve percent attained the level of educational specialist (D1). Sixty-three percent had more than ten years of teaching experience. Twenty-one percent

had six to ten years, thirteen percent had three to five years and four percent had one or two years of teaching experience (D2).

The ethnic background of the study’s 25 participants was generally unlike the children they instructed. Differences abounded in the cultures of teachers and students which somewhat reflects the national percentage of White teachers. According to the National Center for Education Statistics (2009), 83.3 percent of all public-school teachers were White.

Most of the participants were White and this percentage almost reflected the percentage of White people in America (U.S. Census Bureau, 2016). The Black participants in the study more closely reflected their general population in America. The Latino/Hispanic participants in the study did not reflect their percentage in America (U.S.

Table 3.1

Ethnic Background of Study Participants

Ethnicity	Sample Percent	U.S. Percent¹
White	71	77.1
Black	13	13.3
Latino/Hispanic	8	17.6
Asian	0	5.6
Native American	0	1.2
Middle Easter	4	.001
Other	4	.05

¹ Based on U.S. Census Bureau, 2016 that allows respondents to self-describe as more than one category

Census Bureau). No Asians or Native Americans participated in the study, but one Middle Easterner and one Other did. One participant skipped this question.

The participants reported 85% of their students were African American. One response to each of the two questions was not included because the number was given for an entire school instead of for classes. Two participants skipped each of these two questions.

Fifty-six percent of the participants indicated they were not given adequate information regarding how AR could be used in the classroom. Eighty percent attended no AR workshops conducted by their school or district (D5). Eighty percent had a classroom library that contained AR books. Ninety-five percent attempted to have a wide range of books in their classrooms that might appeal to their students.

Sixty-three percent did not contact parents to share STAR scores or AR progress (D15). Forty-seven percent did not meet with students to share STAR scores or AR progress though thirty-five percent of participants met with their students three or more times during the school year to share scores or progress (D16). Fifty-five percent often gave booktalks to their students regarding AR books and forty-six percent almost never or rarely gave booktalks (D21). Most participants promoted AR books with African American characters to their students (D23), but fifty percent almost never or rarely promoted AR books by African American authors to their students (D24).

Survey Description

The research instrument in this study was the Teachers' Survey (see Appendix C). The questions in the survey were developed out of my experiences as an AR instructor, a high school English teacher, a literacy coach, and from the experiences of other public school teachers of African American students in addition to research literature. Most questions (with the exception of open questions 39 and 42 plus closed questions 40 and 41) have a basis in the literature of reading research.

The initial 11 questions were designed to collect information about the teachers' characteristics, which were the six independent variables of the study. Question 10 asked the participant for the number of his or her students who are African American. Although the district was made up of majority African American students, Caucasian, Hispanic, Arabic, and Asian students also attended. The six variables required ordinal responses, and were placed in ordered categories along a single dimension (Fowler, 2014).

Questions 12 through 22 generated information about the eight elements of the AR program described above. The items used a four point Likert scale response set of 1. Almost never, 2. Rarely, 3. Often, and 4. Almost always. The Likert scale was utilized because a single, streamlined question with a scaled set of answers can accomplish as much as a series of paired comparisons (Groves, Fowler, Couper, Lepkowski, Singer, & Tourangeau, 2009). An even number was selected in order to avoid a neutral midpoint (McKenna, Conradi, Lawrence, Jang, & Meyer, 2012). Questions 16 and 17 focused on the school climate, which may have influenced methods and approaches used by the participants. These dependent variables described how the participants use the elements of the AR program to increase students' reading achievement results. Examination of the

participants' responses empowered me to gauge the accuracy of the survey regarding the major AR elements.

Questions 23 through 39 generated participant responses to the approaches teachers may have used to increase students' reading achievement scores. These items also used a four point Likert scale response set of 1. Almost never, 2. Rarely, 3. Often, and 4. Almost always for these dependent variables. Question 39 was an open-ended query that asks the participants to make a list to describe any methods or approaches of the AR program that had not been previously mentioned in the survey, but were used to increase the students' reading scores. Participants had the option of writing n/a if they do not choose to add any elements. The purpose of this query was to determine whether I may have missed any AR methods or approaches in the survey's construction.

Question 40 asked the participant regarding his or her availability to be contacted by the researcher for a brief follow-up interview. Questions 41 and 42, respectively, queried whether the participants would like an emailed copy of the final report at the conclusion of the study, and the participants' email address preference for the study. To protect the participants' privacy and confidentiality, email addresses that did not contain the participants' names were requested. A comments section was also included at the end of the survey so the participants could express themselves regarding the AR program or the survey itself.

Validation of the Survey

A draft of the research-based survey was distributed and discussed in meetings with three public school English and language arts instructors to assess the reliability of

the instrument during June 2014. They indicated the questions on the survey were clear and comprehensible and stated they felt English and language arts teachers would be able to respond to the questions. To determine the validity of the survey, A faculty member indicated the survey items were acceptable in October 2014.

Survey Standards

The use of surveys is approximately 60 to 70 years old (Groves et al., 2009). The authors suggested all survey questions should meet three distinct standards

- Content standards (are the questions asking about the right things?)
- Cognitive standards (do respondents understand the questions consistently, do they have the information required to answer them, and are they willing and able to formulate answers to the questions?)
- Usability standards (can respondents complete the questionnaire easily and as they were intended to?)

The five different methods researchers used to evaluate draft survey questions to see if the questions meet the above criteria include expert review, in which subject matter experts review the questions to assess whether their content is appropriate for measuring the intended concepts; focus group discussions in which the researcher holds semi-structured interviews with members of the target population to explore what they know about the issues, how they think, and what terms they use; cognitive interviews, in which interviewers administer draft questions in individual interviews and probe to learn how respondents understand questions and formulate answers; field pretests, in which interviewers conduct a small number of interviews using sampling and procedures similar

to the full-scale survey, then debrief interviewers and tabulate data for signs of trouble; and randomized or split-ballot experiments, in which different portions of the pretest sample receive different wordings of questions attempting to measure the same thing.

Internet Surveys

Dillman, Smyth, and Christian (2009) recommended the following guidelines for web survey implementation:

- To the extent possible, personalize all contacts to respondents
- Provide clear instructions for how participants can access the survey
- Know and respect the capabilities and limits of the web browser(s).

I adhered to these guidelines as I constructed and conducted the survey.

Procedures

Process for Recruiting Participants

The principals of the three elementary schools contacted their instructional staffs via emails that contained brief summaries of this study and links to the online survey located on the SurveyMonkey Pro website between January 22, 2016 and June 30, 2016. Neither the principals nor I knew the identities of the 25 participants from the three schools who responded to the survey.

Process for Taking the Survey

The emails that principals sent to each staff member included the link which lead directly to the first sheet of the survey on the SurveyMonkey Pro website. The first sheet was the Information and Consent Page which was followed by the Teachers' Survey. The

directions of the survey requested that participants respond to each item, although they were also informed that they were not required to do so.

Process for Receiving the Survey Data

I transferred the data that had been collected in the SurveyMonkey Pro website and imported the results to IBM's SPSS Statistics software, Version 22. A third party approved the statistical analyses.

Data Analysis

Correlation is the basis of regression. In categorical variables, numbers stand for categories, with no order implied (Carrol & Carrol, 2002). All of the six teacher characteristics, some of the eight elements, and some of the ten approaches were categorical (and not continuous with regular intervals). Thus, the Spearman's rho correlation coefficient, a standardized measure of the strength of relationship between two variables that does not rely on the assumptions of a parametric test, was utilized (Field, 2009). A correlation coefficient indicates the extent to which two measures correspond to a single line. The statistical model of the two-tailed test was utilized, because a non-directional null hypothesis was used. Since 25 participants responded to the survey and for survey studies that have fewer than 30 participants, an alpha of .10 is standard (DeGiorgi & Reimann, 2008; Rinne & Mazzocco, 2013). I used a more liberal alpha level of $p = .10$ to reject the null hypothesis for these correlation analyses.

If p were found to be less than .10, then the direction and magnitude of the correlation was considered. The direction of the correlation coefficient (or r) can be positive or negative. A positive direction means as one variable gets larger, the other

variable gets larger. A negative direction of the correlation coefficient means as one variable becomes larger, the other variable becomes smaller. The correlation coefficient can be measured in magnitude by its range from 0, which means no relationship between the two variables, to $+.80$ or $-.80$ which means there is a strong relationship between the two variables (Cohen, Cohen, West, & West, 2002).

In IBM's Statistical Package for the Social Sciences software, Version 22, I determined whether there was a statistically significant relationship between any of the six teacher characteristics and some of the eight elements of the AR program and whether there was a statistically significant relationship between any of the six teacher characteristics and some of the ten approaches the participants may have used with the AR program to increase the reading achievement of their African American students.

Summary

Chapter Three begins with a brief review of the AR program and includes a description of the study's purpose which was to determine if six teacher characteristics have a statistically significant relationship with eight elements of the AR program and with ten approaches the 25 participants (who responded to a research-based online survey created by me) may have used to increase the reading achievement scores of their African American students. The students were in a public-school system in grades kindergarten through sixth in a small Midwestern city. Descriptions are provided of the setting, participants, survey standards, and procedures followed in the study. The chapter concludes with a description of the data analysis implemented in the study.

CHAPTER 4

RESULTS

The descriptive findings of the comparison of the teacher characteristics and both the eight elements and the ten teaching approaches opens Chapter Four. Then the results of the comparisons are reviewed. A summary of the correlations between the characteristics and the elements is followed by a summary of the correlations between the characteristics and the approaches. The final participant responses are described and the chapter closes with a summary of the results.

The purpose of this descriptive study was to determine whether six teacher characteristics had a significant effect on eight elements of the Accelerated Reader (AR) program and the ten teaching approaches participants may have used to increase their African American students' reading achievement in a Midwestern city. The hypothesis predicted that each of the six teacher characteristics would have a significant effect on the eight elements and the ten teaching approaches. Twenty-five participants responded to the survey. For survey studies that have fewer than 30 participants, an alpha of .10 is standard (DeGiorgi & Reimann, 2008; Rinne & Mazzocco, 2013).

To help the reader understand the overall relationships between teacher characteristics (described in Chapter Three) and both AR elements and the approaches used in the AR program, it is useful to consider the overall levels of these elements reported by the participants.

Descriptive Information of the Eight Elements of the AR program

The first set of outcomes considered in these analyses were the eight elements of the AR programs. Descriptive information on these items is provided in Table 4.1. In this table, the mean for measures that are continuous is shown in the first column (with the standard deviation given in parentheses underneath the mean), while the percentage for categorical variables are shown in the second column.

Most (68%) school administrations supported the use of the AR program (D8), meaning they encouraged teachers to use the program. Since most participants previously indicated they did not have access to the STAR portion of the AR program (D11), not many participants shared the STAR assessments with their students, allowed students to retake STAR tests, or told students the average STAR score for the entire class.

Descriptive Information for the Ten Approaches Participants May Use with the AR Program

The first set of outcomes considered in these analyses were the ten approaches participants may have used with the AR program. Descriptive information on these items is provided in Table 4.2. This table is set up in the same manner as Table 4.1.

According to Table 4.2, most (73.7%) participants gave rewards to their students for reaching AR targets, and most (62%) schools provided library support. Most participants (70%) played an active role as they helped students find AR books in the school library, maintained classroom libraries of AR books for their students (80%), gave booktalks on AR books (80%), and promoted AR books with African American characters (84%) or AR books written by African American authors (86%).

Results Related to the Six Teacher Characteristics and the Eight AR Elements

The first research question asked: Do the six teacher characteristics have a statistically significant relationship with the teachers' use of eight elements of the AR program that may increase African American students' reading scores? To address

Table 4.1

Descriptive Information about the Eight Elements of AR Programs

Elements	Mean (SD)	Percent
Extent of school-wide implementation ¹	2.65 (0.75)	
School or district administration supports AR use		68.2
AR is part of school improvement plan		45.8
Percent AR program is part of reading program ¹ Less than 25% of the reading program	1.00 (0.00)	
Frequency of STAR assessments during school year ¹	1.27 (0.70)	
Share STAR assessment with student		15.8
Allow student to retake STAR test		21.4
Tell students average STAR score	7.1	

¹ This measure was converted to a z-score for correlational analyses

Table 4.2

Descriptive Information about the Ten Approaches Used in AR Programs

Approaches	Mean (SD)	Percent
Teacher shares STAR or AR progress with parent ¹	0.89 (1.83)	
Frequency of teachers' AR meetings with student ¹	1.41 (1.42)	
Gives rewards for AR targets		73.7
Level of school library support for AR ¹	2.63 (0.62)	
Teacher helps students in school library find AR		70
Teacher has classroom library of AR books		80
Teacher allows students to take home AR books		52.4
Teacher gives booktalks on AR books ¹	2.33 (0.80)	

Teacher promotes AR books with AA characters ¹	2.67 (0.84)
Teacher promotes AR books by AA authors ¹	2.56 (0.86)

¹ This measure was converted to a z-score for correlational analyses

this question, each teacher characteristic was analyzed in its relationship with each of the eight elements. In cases wherein at least one relationship was observed to be significant, the correlation results are displayed in a table. Due to the sample size of 25, a statistical significance level of $p \leq .10$ was used.

Teacher Characteristic 1: Current Level of Educational Attainment

The first set of analyses examined the correlation between how many years of education teachers reported having with eight elements of the AR program. The results of these analyses are presented in Table 4.3. In this table, the correlation between years of education and each of the eight elements is shown in the first column, while the significance of each relationship is provided in the second.

The results from these analyses reveal that, of the eight elements, three were significantly related to the teachers' years of education. The extent of school-wide implementation had a positive relationship with years of education ($r = .50$), indicating that teachers with more education were in schools in which the implementation of the AR program was higher. Whether the AR program was part of the school improvement plan

had a significant and positive relationship to the teachers' educational attainment ($r = .42$) and whether the teachers told the class the average STAR scores also had a significant and positive relationship to the teachers' educational attainment ($r = .39$). Thus, the teachers with more education were in schools that included the AR program as part of the school improvement plan. In addition, teachers with more education were more likely to share the class average STAR score with their students.

It is interesting to note that the strongest correlation was between teacher's level of education and the element that was part of the school itself (extent of AR

Table 4.3

Relationship Between Teachers' Level of Educational Attainment and the Eight Elements

Elements	Correlation with Years of Education	Significance of Correlation
Extent of school-wide implementation	.50	.02
Level of administrative support	.27	.23
AR is part of school improvement plan	.42	.05
Percent AR program is part of reading program	.NA ¹	
Frequency of STAR assessments	.11	.62

Share STAR assessment with student	.10	.64
Allow student to retake STAR test	.31	.15
Tell students average STAR score	.39	.06

¹ This correlation was not calculated because all participants had the same response of less than 25%

implementation), and not part of a teacher's own initiative. While the correlation between the level of the teachers' education and allowing students to retake STAR assessments was almost as strong as the correlation between the level of the teachers' education and whether AR was part of the school improvement plan, this correlation did not reach statistical significance either.

Teacher Characteristic 2: Total Years of Teaching Experience

The second set of analyses examined the correlation between how many total years of teaching experience teachers reported having with eight elements of the AR program. The results of these analyses are presented in Table 4.4. In this table, the correlation between total years of experience and each of the eight elements is shown in the first column, while the significance of each relationship is provided in the second. The results from these analyses reveal that, of the eight elements, only two were significantly related to the teachers' total years of teaching experience. The extent of school-wide implementation had a positive relationship with total years of teaching experience ($r = .45$), indicating that teachers with more total years of teaching experience

were in schools in which the implementation of the AR program was higher. Also, there was a positive relationship between whether the AR program was part of the school improvement with the teachers' total years of teaching experience ($r = .51$). This result indicated that teachers with more total years of teaching experience were in schools in which the AR program was more extensively implemented and also was part of the schools' improvement programs--two factors that may themselves have been related.

It is interesting to note that again, the two strongest correlations were between teacher's total years of teaching experience and the two elements that were part of the

Table 4.4

Relationship Between Teachers' Total Years of Teaching Experience and the Eight Elements

Elements	Correlation with Total Years of Teaching Experience	Significance of Correlation
Extent of school-wide implementation	.45	.04
Level of administrative support	.35	.13
AR is part of school improvement plan	.51	.02
Percent AR program is part of reading program	.NA ¹	
Frequency of STAR assessments	.28	.21
Share STAR assessment with student	.26	.24
Allow student to retake STAR test	.27	.23
Tell students average STAR score	.15	.52

¹ This correlation was not calculated because all participants had the same response of less than 25%

school itself (extent of implementation and inclusion in the school improvement plan), and not part of a teacher's own initiative. The correlations between teachers' total years of teaching experience and the STAR activities (frequency of administering STAR tests, sharing STAR scores with students, allowing students to retake STAR assessments and telling students the average STAR classroom score) were not as strong as the first three. These correlations again did not reach statistical significance.

Teacher Characteristic 3: Total Years of Teaching Experience at Current Grade Level

The third set of analyses examined the correlation between how many years teaching experience in the current grade level teachers reported and each of the eight elements of the AR program. The results from these analyses reveal that, across the eight elements, none of the correlations were significantly related to the teachers' years of teaching experience at the current grade level.

Teacher Characteristic 4: Number of School or District AR Workshops Attended

The fourth set of analyses examined the correlation between how many school or district AR workshops the teachers reported attending and the eight elements of the AR program. The results from these analyses reveal that, of the eight elements, none of the correlations were significantly related to the number of school or district AR workshops the teachers attended.

Teacher Characteristic 5: Years of Using AR in the Classroom

The fifth set of analyses examined the correlation between the years of using AR in the classroom the teachers reported having with eight elements of the AR program. The

results of these analyses are presented in Table 4.5. In this table, the correlation between years of using AR in the classroom and each of the elements is shown in the first column, while the significance of each relationship is provided in the second.

The results from these analyses reveal that, of the eight elements, three were significantly related to the teachers' years of using AR in the classroom. The extent of school-wise implementation had a positive relationship with years of using AR in the classroom ($r = .53$), indicating that teachers with more years of using AR in the classroom were in schools in which the AR program was more widely used. Also, there was a positive relationship between whether the AR program was part of the school improvement with the number of years the teachers had used AR in the classroom ($r = .56$). This result paralleled those observed for years of teaching experience, indicating that teachers with more years of using AR in the classroom were in schools in which the AR program was more extensively implemented and also was part of the schools' improvement programs. These two factors possibly could be related. Also, there was a significant and positive relationship between whether the teacher allowed students to retake the STAR test with the number of years the teachers had used AR in the classroom ($r = .36$). Thus, the teachers with more experience with AR allowed students to retake the STAR test to increase their reading scores.

The two strongest correlations were between the teachers' years of using AR in the classroom and the two elements that were part of the school itself (extent of implementation and inclusion in the school improvement plan), and not part of a teacher's

own initiative. The correlations between teachers' years of using AR in the classroom and the STAR activities (frequency of administering STAR tests, sharing STAR scores

Table 4.5

Relationship Between Years of Using AR in the Classroom and Eight Elements

Element	Correlation with Years of Using AR in Classroom	Significance of Correlation
Extent of school-wide implementation	.53	.01
Level of administrative support	.15	.53
AR is part of school improvement plan	.56	.01
Percent AR program is part of reading program	.NA ¹	
Frequency of STAR assessments	.17	.46
Share STAR assessment with student	.16	.48
Allow student to retake STAR test	.36	.09
Tell students average STAR score	.34	.11

¹ This correlation was not calculated because all participants had the same response of less than 25%

with students and telling students the average classroom score) were not as strong as the first three. These correlations did not reach statistical significance.

Teacher Characteristic 6: Grade Taught While Using AR

The sixth set of analyses examined the correlation between the grade the teachers taught while using AR and eight elements of the AR program. The results from these analyses reveal that, of the eight elements, none of the correlations were significantly related to the grade the teachers taught while using the AR program.

Summary of the Results of the Correlations Between the Six Teacher Characteristics and the Eight Elements of the AR Program

Table 4.6 below summarizes the results of the correlations between the six teacher characteristics and the eight elements of the AR program. The + sign indicates that a statistically significant and positive correlation of $p \leq .10$ was found for the relationship between the specific teacher characteristic and the element indicated. The ++ sign indicates that a statistically significant and positive correlation of $p \leq .01$ was found for the relationship between the specific teacher characteristic and the element indicated. The 0 indicates no statistically significant correlation was found for the relationship between the specific teacher characteristic and the element indicated.

Of the six teacher characteristics and the eight elements, the strongest and most statistically significant positive correlation at the $p \leq .01$ level was found between the teacher characteristic of years the teachers have used AR in the classroom and the element of the extent that AR is part of the school improvement plan.

Among the eight elements which are usually part of the AR program, the largest number (three) of statistically significant and positive correlations were found for the

Table 4.6

Summary of the Relationships Between Six Teacher Characteristics and Eight Elements of the AR Program

Element	Yrs Ed	Yrs Exp	Yrs tch Grade	# Wrkshps Attended	Yrs AR in classrm	Grade tgt using AR
Extent of school-wide implementation	+	+	0	0	+	0
Level of administrative support	0	0	0	0	0	0
AR is part of school improvement plan	+	+	0	0	++	0
% AR program part of reading program ¹						
Frequency of STAR assessments	0	0	0	0	0	0
Share STAR assessment w/student	0	0	0	0	0	0
Allow student to retake STAR test	0	0	0	0	+	0
Tell students average STAR score	+	0	0	0	0	0

¹ This correlation was not calculated because all participants had the same response of less than 25%

+ indicates the relationship was positive and significant at a level of $p < .10$; ++ indicates the relationship was positive and significant at $p \leq .01$
0 indicates the relationship was not significant ($p \geq .10$)

element of the extent of school-wide implementation of the AR program and, also, three were found for the element of whether the AR program was implemented on a school-wide basis. For the element of allowing students to retake STAR tests to improve their reading scores, one statistically significant and positive correlation was found; one statistically significant and positive correlation was also indicated for the element of the teachers telling the classes the average STAR score. No statistically significant correlations were found for the elements of the level of administrative support of the AR program, the frequency of the administration of the STAR assessments, or sharing the STAR assessment with students.

Of the six teacher characteristics, the largest number (four) of statistically significant and positive correlations were found for the characteristic of years using AR in the classroom. Three statistically significant and positive correlations were indicated for the characteristic of years of educational attainment. Two statistically significant and positive correlations were found for the characteristic of years of teaching experience. No significant correlations were found for the teacher characteristics of years of teaching experience at current grade level, number of AR workshops attended, or grades taught while using the AR program.

Results Related to the Six Teacher Characteristics and the Ten Approaches

The second set of analyses were focused around the second research question, namely: Do six teacher characteristics have a significant relationship with participants' use of ten teaching approaches that may increase African American students' reading scores?

Teacher Characteristic 1: Current Level of Educational Attainment

The first set of analyses examined the correlation between how many years of education teachers reported having with ten teaching approaches the participants may have used with the AR program. The results of these analyses are presented in Table 4.7. In this table, the correlation between years of education and each of the approaches is shown in the first column, while the significance of each relationship is provided in the second. Due to the sample size of 25, a statistical significance level of $p \leq .10$ was used. The results from these analyses reveal that, of the ten approaches, six were significantly related to the teachers' years of education. The frequency of the teachers' meeting with their students to discuss STAR and/or AR progress had a positive relationship with years of education ($r = .44$), indicating that teachers with more education met with their students more often. Also, there was a positive relationship between the level of rewards teachers provided to their students for reaching AR targets with teachers' educational levels ($r = .57$). This result indicated that teachers with more education gave more rewards to their students for achieving AR goals.

A third result indicated the teachers' years of education had a positive relationship with the teachers' having a classroom library that contained AR books ($r = .45$), indicating the more education the teachers had, the more likely the teachers would have a classroom library with AR books. There was a significant relationship with the teachers' years of educational attainment and whether the teachers gave booktalks on AR books ($r = .38$). The more education the teachers had, the more they gave booktalks to their students. Also, there was a positive relationship between the teachers' years of education and the level that the teachers promoted AR books with African American

Table 4.7

Relationship Between Teachers' Level of Educational Attainment and Ten Strategies

Strategy	Correlation with Years of Education	Significance of Correlation
Teacher shares STAR or AR progress with parent	.24	.26
Frequency of teachers' AR meetings with student	.44	.03
Level of rewards for AR targets	.57	.01
Level of school library support for AR	.21	.33
Teacher helps students in school library find AR	-.14	.54
Teacher has classroom library of AR books	.45	.03
Teacher allows students to take home AR books	-.15	.49
Teacher gives booktalks on AR books	.38	.07
Teacher promotes AR books with AA characters	.49	.02
Teacher promotes AR books by AA authors	.54	.01

characters ($r = .49$). The more education the teachers had, the more they discussed and recommended books with African American characters to their students. Similarly, there was a positive relationship between the teachers' years of education and the level that the teachers promoted AR books by African American authors ($r = .54$). This result indicated the more education the teachers attained, the more likely the teachers would encourage their students to read books by African American authors.

Teacher Characteristic 2: Total Years of Teaching Experience

The second set of analyses examined the correlation between the total years of teaching experience the teachers reported having with ten teaching approaches the participants may have used with the AR program. The results of these analyses are presented in Table 4.8. In this table, the correlation between total years of teaching experience and each of the approaches is shown in the first column, while the significance of each relationship is provided in the second.

The results from these analyses reveal that, of the ten approaches, four were significantly related to the teachers' total years of teaching experience. All of the six significant correlations were positive. These correlations indicated teachers with more education met more frequently with students, provided more rewards to their students for meeting AR targets, were more likely to have a classroom library of AR books, were more likely to give booktalks on AR books, promoted more AR books with African

American characters and promoted more books by African American authors. The strongest significant correlations were found (respectively) for providing rewards to students for reaching AR targets, promoting AR books by African American authors, and promoting AR books featuring African American characters. The correlations that

Table 4.8

Relationship Between Teachers' Total Years of Teaching Experience and Ten Strategies

Strategy	Correlation with Years of Experience	Significance of Correlation
Teacher shares STAR or AR progress with parent	.15	.50
Frequency of teachers' AR meetings with student	.41	.06
Level of rewards for AR targets	.54	.01
Level of school library support for AR	-.06	.80
Teacher helps students in school library find AR	-.18	.44
Teacher has classroom library of AR books	.36	.10
Teacher allows students to take home AR books	-.02	.92
Teacher gives booktalks on AR books	.37	.09
Teacher promotes AR books with AA characters	.32	.14
Teacher promotes AR books by AA authors	.32	.15

were not significant included sharing AR progress with parents, the level of library support for AR, the level of support teachers provided in the school library, and allowing students to take home AR books.

Teacher Characteristic 3: Total Years of Teaching Experience at Current Grade Level

The third set of analyses examined the correlation between the total years of teaching experience at current grade level the teachers reported having with ten different teaching approaches the participants may have used with the AR program. The results of these analyses are presented in Table 4.9. In this table, the correlation between the years of teaching experience at current grade level and each of the teaching approaches is shown in the first column, while the significance of each relationship is provided in the second.

The results from these analyses reveal that, of the ten approaches, only one was significantly related to the teachers' total years of teaching experience. The level of rewards teachers gave to students for meeting AR targets had a positive relationship with the total years of experience at the current grade level the teachers had ($r = .38$). The more total years of teaching experience at the current grade level the teachers had, the more rewards they gave to their students for meeting AR targets.

Teacher Characteristic 4: Number of AR Workshops Conducted by School or District Participant Had Attended

The fourth set of analyses examined the correlation between the number of AR workshops conducted by the school or district the teachers have attended with different teaching approaches used with the AR program. The results of these analyses are presented in Table 4.10. In this table, the correlation between the number of workshops

Table 4.9

Relationship Between Teachers' Years of Teaching Experience at Current Grade Level and Ten Strategies

Strategy	Correlation with Years of Experience	Significance of Correlation
Teacher shares STAR or AR progress with parent	.12	.58
Frequency of teachers' AR meetings with student	.21	.33
Level of rewards for AR targets	.38	.07
Level of school library support for AR	.19	.36
Teacher helps students in school library find AR	.05	.82
Teacher has classroom library of AR books	.25	.26
Teacher allows students to take home AR books	-.08	.73
Teacher gives booktalks on AR books	.25	.25
Teacher promotes AR books with AA characters	.34	.11
Teacher promotes AR books by AA authors	.34	.11

and each of the approaches is shown in the first column, while the significance of each relationship is provided in the second.

The results from these analyses reveal that, of the ten approaches, four were significantly related to the number of school or district AR workshops the teachers had attended. All of the four significant correlations were positive. These correlations indicated teachers who attended more AR workshops were more likely to frequently meet with students to discuss AR progress, were more likely to give booktalks on AR books, were more likely to promote AR books with African American characters, and were more likely to promote AR books written by African American authors. The three strongest correlations were (respectively) for the frequency of meeting with students to discuss AR progress, promoting AR books with African American characters, and giving booktalks on AR books. The correlations that were not significant included sharing AR progress with parents, providing rewards to students for reaching AR targets, the level of library support for AR, the support teachers provide to students in the school library, having a classroom library of AR books and allowing students to take home AR books.

Teacher Characteristic 5: Years of Using AR in the Classroom

The fifth set of analyses examined the correlation between how many years of using AR in the classroom teachers reported with different teaching approaches used with the AR program. The results of these analyses are presented in Table 4.11. In this table, the correlation between years of using AR in the classroom and each of the approaches is

shown in the first column, while the significance of each relationship is provided in the second.

Table 4.10

Relationship Between Teachers' Number of AR Workshops Attended and Ten Strategies

Strategy	Correlation with Number of AR Workshops	Significance of Correlation
Teacher shares STAR or AR progress with parent	-.28	.20
Frequency of teachers' AR meetings with student	.45	.03
Level of rewards for AR targets	.11	.63
Level of school library support for AR	.22	.31
Teacher helps students in school library find AR	.11	.61
Teacher has classroom library of AR books	.28	.19
Teacher allows students to take home AR books	-.07	.75
Teacher gives booktalks on AR books	.40	.06
Teacher promotes AR books with AA characters	.44	.04
Teacher promotes AR books by AA authors	.36	.09

Table 4.11

Relationship Between Teachers' Years of Using AR in the Classroom and Ten Strategies

Strategy	Correlation with Years of Using AR	Significance of Correlation
Teacher shares STAR or AR progress with parent	.18	.42
Frequency of teachers' AR meetings with student	.59	.003
Level of rewards for AR targets	.46	.03
Level of school library support for AR	.42	.04
Teacher helps students in school library find AR	-.12	.59
Teacher has classroom library of AR books	.62	.002
Teacher allows students to take home AR books	-.005	.98
Teacher gives booktalks on AR books	.54	.008
Teacher promotes AR books with AA characters	.80	.000
Teacher promotes AR books by AA authors	.82	.000

The results from these analyses reveal that, of the ten approaches, seven were significantly related to the teachers' years of using AR in the classroom. Each of the

seven significant correlations was positive. The correlations indicate teachers with more years of using AR in the classroom met more frequently with their students, provided more rewards to their students for reaching AR targets, received more library support for AR in their schools, were more likely to have a classroom library of AR books, were more likely to give booktalks on AR books, were more likely to promote AR books with African American characters, and were more likely to promote AR books written by African American authors. The strongest correlations were found (respectively) for promoting AR books with African American characters (tied with), promoting AR books by African American authors, and having a classroom library of AR books. The correlations that were not significant included the level of sharing AR progress with parents, whether the teachers provided support in the school library, and whether the teachers allowed students to take home AR books.

It is interesting to note the three strongest correlations were for the approaches of promoting books by African American authors, promoting books that featured African American characters and having a classroom library of AR books. For experienced teachers of the AR program, these could possibly be powerfully effective approaches in the low-income school district of majority African American students.

Teacher Characteristic 6: Grade Currently or Previously Taught While Using AR

The sixth set of analyses examined the correlation between the teachers' grade currently or previously taught while using AR and ten approaches that teachers may have used with the AR program. The results from these analyses reveal that, of the ten

approaches, none of the correlations were significantly related to the teachers' grade currently or previously taught while using AR.

Summary of the Results of the Correlations Between the Six Teacher Characteristics and the Ten Approaches Participants May Use with the AR Program

Table 4.12 below summarizes the results of the correlations between the six teacher characteristics and the ten approaches that teachers may use to increase the reading scores of African American students as they utilize the AR program. The + sign indicates that a statistically significant and positive correlation of $p \leq .10$ was found for the relationship between the specific teacher characteristic and the approach indicated. The ++ sign indicates that a statistically significant and positive correlation of $p \leq .01$ was found for the relationship between the specific teacher characteristic and the approach indicated. The 0 indicates no statistically significant correlation was found for the relationship between the specific teacher characteristic and the approach indicated.

Six positive correlations were found for the teacher characteristic of years using AR in the classroom. This pattern indicated having experience using the AR program increased the participants reported use of different approaches as they employed the program, including possibly making the reading material more accessible and interesting to their students. Six positive correlations were also indicated for the teacher characteristic of years of educational attainment. This pattern indicated teachers with more education employed more teaching approaches as they used the AR program with their students.

Four positive correlations were found for the teacher characteristics of years of teaching experience and number of AR workshops attended. This pattern suggests

Table 4.12

Summary of the Relationships Between Six Teacher Characteristics and Ten Strategies of the AR Program

Strategy	Yrs Ed	Yrs Exp	Yrs tch Grade	# Wrkshps Attended	Yrs AR in classrm	Grade tgt using AR
Level of sharing AR progress with parent	0	0	0	0	0	0
Frequency of AR meetings with student	+	+	0	+	++	0
Level of rewards or awards for AR targets	++	++	+	0	+	0
Level of library support for AR	0	0	0	0	+	0
Assistance teachers give in school library	0	0	0	0	0	0
Have a classroom library of AR books	+	+	0	0	++	0
Allow students to take home AR books	0	0	0	0	0	0
Give booktalks on AR books	+	+	0	+	++	0
Promote AR books with AA characters	+	0	0	+	++	0
Promote AR books by AA authors	++	0	0	+	++	0

+ indicates the relationship was positive and significant at a level of $p < .10$; ++ indicates the relationship was positive and significant at $p \leq .01$
0 indicates the relationship was not significant ($p \geq .10$)

teachers with more experience and who attended more workshops used more teaching approaches with their students. Three positive correlations were indicated for the teacher characteristic of years teaching in current grade. This pattern suggests teachers who instruct at the same grade level use more approaches when they used AR.

No statistically significant correlations were found for the teacher characteristic of grade taught using AR. Most of the sixty correlations were not statistically significant; only twenty-two correlations were significant among five teacher characteristics, specifically the teachers' years of education, the teachers' years of teaching experience, the teachers' years of teaching the current grade level, the number of workshops the teachers attended, and the teachers' years of using AR in the classroom.

Final Participant Responses

No participants indicated they would be available for the researcher to contact by phone for a follow-up interview of five to ten minutes regarding the AR program. Most participants (86 %) responded that they would not like a final copy of the survey's results and 14% (or three) indicated they would like to receive a copy. Three participants skipped this question. Of those three respondents who indicated they would like to receive a copy, only one typed an email address. A copy will be emailed to that participant after the conclusion of the study.

Summary

Research Question One asked whether any of the six teacher characteristics had a significant effect on eight elements of the AR program. The study's findings showed

three teacher characteristics, specifically the participant's years of using AR in the classroom, the participants' educational level, and the participants' total years of teaching experience, had positive correlations with the different elements, with a total of eight from forty-eight possible correlations of the eight elements with the six teacher characteristics. The elements of the extent of school-wide implementation of the AR program, whether AR is part of the school improvement plan, allowing students to retake the STAR test and telling students the average STAR score of the entire class were positively related to the teacher characteristics. The elements of the level of administrative support for AR, the frequency of STAR assessments, and whether the teacher shares the STAR assessment with students were not related to the teacher characteristics.

Research Question Two queried whether any of the six teacher characteristics had a significant effect on ten teaching approaches the participants may have used when they implemented the AR program. The study's findings show five teacher characteristics, specifically the participants' years of using AR in the classroom, the participants' educational level, the participants' total years of teaching experience, the number of AR workshops attended by participants and the participant's years of teaching in the current grade had positive correlations with these ten approaches, with a total of twenty-two from sixty possible correlations. The approaches that were related to the teacher characteristics were the frequency of AR meetings with students to discuss AR progress, the level of rewards provided for students' meeting AR targets, the level of library support for AR, having a classroom library of AR books, giving booktalks on AR books, promoting AR

books with African American characters, and promoting AR books written by African American authors. The approaches that were not related to the teacher characteristics were sharing AR progress with parents, the assistance teachers gave their students in the school library, and allowing students to take home AR books.

CHAPTER 5

IMPLICATIONS

Introduction

How are teacher characteristics related to teaching practices in reading instruction? Since the teachers are the most powerful dynamic in the classroom, it is important to comprehend which teacher characteristics may be affecting the reading achievement of African American students when the Accelerated Reading (AR) program is utilized in the classroom.

This descriptive study examined whether six teacher characteristics had a significant relationship with eight elements of the AR program and ten teaching approaches participants may use to increase their African American students' reading achievement. The hypothesis predicted that the teacher characteristics would be related to all eight elements and all ten approaches. Twenty-five teacher participants responded over a six-month period to an online 42 question research-based survey.

This chapter presents an overview of the findings in addition to implications of those findings. The chapter also includes a discussion of limitations, directions for further research, and conclusions.

Summary

Discussion of Participant Information

Results indicated that most of the 25 participants were White teachers whose classrooms generally consisted of 85% African American students in grades kindergarten

through sixth. This finding means most of the teachers were not the same race as the students they instructed.

Interestingly, most participants indicated they did not receive adequate information on how the AR program could be used in the classroom. This finding contrasts with the AR program guidelines that stipulate teachers who use the AR program must be adequately trained (Persinger, 2001). Also, the lack of instruction of the teacher's role in the AR program as a monitor (Malette et al., 2004) may have caused some teachers to engage in a variety of activities to help their students read better as they used the AR program. Most participants gave rewards to their students for reaching AR targets, with half of those distributing certificates of achievement to students. During these times of school budget reductions, certificates may be the cheapest form of recognition. Although research on AR literature may frown on the use of rewards, teachers are providing tangible motivation to their students as the AR program is implemented because they view rewards as productive.

Most participants indicated they did not have access to the STAR assessment program. Since the STAR program is an additional expense of the AR program, reduced school budgets may have been the reason why the STAR program was inaccessible to the majority (86%) of participants. This inaccessibility may have made it difficult for teachers to gauge reading progress or to effectively monitor literacy growth for sharing information at parent teacher conferences. The lack of access to the STAR program may have affected the findings of this study.

Most participants reported that they attempted to have a wide range of books in their classrooms that may appeal to students. This finding may indicate that most teachers do try to provide book access to their students and is supported by Wilson and Casey (2007) who stated that knowing which materials to place in a teacher's classroom is the bottom line when influencing students' attitudes toward reading. The finding is also supported by Sanden (2014) in her study of highly effective elementary literacy teachers; she concluded these teachers maintained diverse classroom libraries that appealed to many interests and reading levels.

Similarly, although most participants did have a school library, almost half had no library staff. This finding could also be caused by school budget cuts in personnel. In those school libraries, the AR books were usually identified with recognizable AR labels, a finding that indicated school support of the AR program. Also, most of the time, a school librarian or media specialist in those libraries was knowledgeable regarding the AR program and helped students find appropriate AR books for their reading level. This finding indicated school library support in locating appropriate books is available for students. Clearly school libraries play an important role in increasing reading achievement.

Relationship of Teacher Characteristics with AR Elements and Teaching Approaches

The results of this study indicated three teacher characteristics, specifically the participants' educational level, the participants' total years of teaching experience, and the participants' years of using AR in the classroom, were positively correlated with at least

some of the elements of the AR program. The same three teacher characteristics, in addition to two additional teacher characteristics (the current grade taught and the number of school or district AR workshops the participants attended) positively correlated with different aspects of the ten approaches participants may have used to increase the reading achievement of their African American students. The findings discussed below are arranged in order of the least to greatest total number of correlation.

Teacher Characteristic: Years of Teaching Experience at Current Grade Level

The teacher characteristic of the years of teaching experience at the current grade level positively correlated with the level of rewards given to students for reaching AR targets and giving booktalks on AR books. The findings indicated the more years of teaching experience at the current grade level, the more the teacher reported giving rewards to students for reaching AR targets. The more experienced teachers may have realized that some students do respond to rewards and that students can be influenced by teachers' sharing and promoting AR books. This finding indicated my study may be accurately identifying links between teachers' experiences at grade level and their specific classroom behaviors when they use the AR program with African American students.

Similarly, the more years the participants reported having used AR in the classroom at the current grade level, the more likely they were to report giving booktalks to their students. Chance and Lesesne (2012, p. 26) stated "booktalks can be the basis of reading promotion." Experienced AR teachers may have realized the power of teacher recommendations to stir students' interest in reading. Discussing a book's content and direction may help students to explore worlds they did not realize existed, an opportunity

realized solely because of the experienced teachers' willingness to take class time to promote various books to their students. This study may have identified yet another relationship between teacher characteristics and their use of an approach that can be used to increase reading achievement of African American students as they use the AR program.

The findings in my study related to a teacher's total years of teaching experience at the current grade level was supported by Huang and Moon (2009), who determined that years of teaching at a specific grade level was significantly associated with improved student reading achievement. The teacher who continually teaches the same grade may be better able to refine and evaluate the most effective teaching methods over time. This finding affirms a relationship between teachers' experience and their use of an approach that can be used to help African American students as they use the AR program.

Teacher Characteristic: Number of AR Workshops Attended

The teacher characteristic of the number of school or district AR workshops attended by the participants was found to have positive correlations across the ten approaches explored in my study. The more AR workshops participants reported having attended, the more frequently they described having held AR meetings with their students. Similarly, teachers who reported attending more AR workshops also reported giving more frequent booktalks on AR books. Finally, teachers who reported attending more AR workshops also reported that they more frequently promoted books that featured African American characters and books written by African American writers. Participants who attended more workshops may have been more interested in the AR

program, and these four activities may have been an outgrowth of their determination to help their students. Teachers who attended AR workshops were probably interested in the AR program as a way to increase their students' reading achievement. This type of extra effort may also have been indicative of other characteristics of the type of generous souls who use their own time and energy to help their students' lives improve. In summary, this finding may indicate that attending AR workshops operates as a teacher characteristic that may be necessary to effectively use the AR program with African American students.

Teacher Characteristic: Total Years of Teaching Experience

The teachers' total years of teaching experience were positively correlated with the AR program being part of the school improvement plan, the extent of school-wide implementation of the AR program, the frequency of AR meetings with students, having a classroom library of AR books, and most strongly, level of rewards given to students for reaching AR targets. Each of these relationships may help indicate the role played by teaching experience in the implementation of this program.

In this study, the more years of total teaching experience the participants reported having, the more likely it was that AR was part of the school improvement plan. The school improvement plan generally identifies each school's mission and goals for the academic school year. The teachers with more experience were also in schools where AR was used school wide. This finding suggested a relationship, but it was unclear the direction that should be used to interpret the relationship. While schools that had a stronger investment in the AR program may have also been places in which teachers had more longevity, it could also be the case that these schools were places for which teachers

had a longer commitment. This finding suggests that more experienced teachers were in schools where the AR program was used to reach reading achievement goals. This finding might alternately indicate that including AR in the school improvement plan and using AR on a school-wide basis may make using AR more accessible to and comfortable for experienced teachers.

In addition, the teachers' years of experience was positively correlated with the frequency of AR meetings with students to discuss AR progress. The more total years of teaching experience the participants had, the more times they reported having meetings to discuss AR progress with their students.

Similarly, the findings indicated the more experienced teachers were, the more likely they were to have a classroom library of AR books. Huang (2012) suggested students need to be given choices about their reading and the teachers' behavior conforms with her suggestion. By providing a classroom library, this finding may suggest that the more experienced teachers would be able to determine which AR books their students read. This finding was supported by Sanden (2014), who found highly skilled elementary literacy teachers directly monitored students' book choices.

The findings also indicated more experienced teachers reported giving more booktalks on AR books. By presenting booktalks, the experienced participants provided information to students about more reading choices. This finding provides support for the potential impact that more experienced teachers may have on important approaches which can be used to increase reading achievement of African American students as they use the AR program.

Finally, the more experienced teachers were also more likely to provide rewards to students for reaching AR target. Perhaps their intention was to provide rewards to students who worked hard to increase their reading achievement. In addition, the finding highlights a possible need to offer additional support to more inexperienced teachers in helping them implement components of a program such as the AR program.

Teacher Characteristic: Level of Educational Attainment

The teacher characteristic of educational attainment was positively correlated with several elements of both the AR program implementation and teaching approaches that support reading among African American children. This section describes each of these findings concerning the teachers' educational levels.

The educational attainment level of the participants was positively related to whether AR was implemented in the participant's school. The results indicated that the more education the participant had, the more likely it was that the AR program was implemented school-wide; thus, the teachers with more education were in schools where AR was used on a school-wide basis. Also, the more education the participant had, the more likely it was that AR was part of the school improvement plan. These two findings taken together suggest that these more highly educated teachers were in schools where the AR program received administrative support.

Teachers with more educational attainment were also more likely to tell their students the average STAR score of the entire class. A more educated teacher could also be a more sensitive teacher: sharing the entire class' STAR score would be of comfort to

students who may be low-achieving if they know the average classroom STAR score is not too far from their own. In a related finding, the more educated teachers were, the more often they held individual AR conferences with their students to discuss their progress. The more highly-educated teachers may realize the importance of supplying feedback to their students as they worked together to increase reading achievement scores. Although holding conferences with students is not a part of the typical AR program, this study reveals this approach to be more common among highly-educated instructors.

In addition, the more educated a teacher was, the more likely the teacher provided a classroom library of AR books to his or her students. Also, the more educated teachers were, the more likely they gave booktalks on AR books. This finding may suggest that more highly-educated teachers may place greater value on the kinds of instructional approaches that are used by implementing classroom libraries and booktalks in their classrooms. Booktalking has been found in other research as giving children a sense that reading is “fun, interesting, and valuable” (Young, 2003, p. 62). Norton and Anfin (2003) concluded booktalks are a useful means to foster literacy development. In addition to booktalking’s increased implementation by teachers who had spent more years teaching at the same grade level, this study's connection between a teacher's own education and their use of booktalking can also be used to better understand different elements that may contribute to their use in the classroom.

An additional finding of this study indicated that the more education the participants had, the more they reported promoting books that feature African American

characters. It could be the case that increased education for instructors included exposure to the values of diversity and multicultural literature; thus, they may have been more interested in sharing African American literature with their African American students. Increased education among these mostly White teachers in this study and their willingness to promote African American culture and literature to the Black children they taught merits further study.

Interestingly, while this study found that the more education the teacher has, the more rewards were given to individual students, this result was not directly supported by McLoyd's (1979) experiment in which elementary school students who receive no rewards read more than twice as much as the rewarded groups. Taken together, the findings of this study and McLoyd's experiment may suggest that more educated teachers were using more of a deleterious practice, one that lowered students' interest in reading. However, McLoyd's experiment consisted of high and low interest children's choices over a 10-minute free reading time period, instead of over a more realistic segment of time such as a school semester or a school year.

Finally, the more education a teacher had, the more he or she reported promoting books by African American authors. The importance of this practice is supported by Diller (1999) who insisted instructors must realize culture is a viable teaching tool. Diller's work found that teachers must seek first to understand a child's cultural background, even by using children's literature as a guide to that particular culture. The connection between the findings of this dissertation and Diller's work may mean that increased education for teachers may contribute to their increased understanding of the

importance of exposing African American children to books by African American authors.

In summary, these findings regarding the relationship between increased teacher educational attainment and teaching approaches for the AR program were similar to Turner's (1990) findings, who reviewed multiple studies from the 1970s and 1980s that indicated as the percentage of teachers with master's degrees increased in specific school districts, student achievement in reading increased. Turner emphasized that the effects of a salary incentive was embedded with the master's degree in the relationship to achievement. It is unknown whether the teachers with master's degrees and above in this study received a salary incentive, but the findings of this study do seem to support Turner's findings that the more highly-educated the teachers are, the more student achievement increases; probably, because the highly-educated teachers are doing more work to help their students.

Teacher Characteristic: Years of Using AR in the Classroom

The teacher characteristic of the teachers' years of using AR in the classroom positively correlated with multiple elements and a variety of teaching approaches that have been found in other research to support reading achievement among African American students. This section summarizes those findings and their implications.

The more years the teachers used AR in the classroom, the more AR was part of the school improvement plan. This finding means the school environment was supportive of AR and perhaps the program was used to measure school achievement progress. These teachers with more years of experience in using AR were working in schools where

participation in the AR program was not only supported but also expected. This study may have identified an area that merits further study.

In addition, the findings of the study indicated the more experienced AR teachers, who were in an environment where AR was implemented school-wide as well as supported by their administrators, may have realized that allowing students to retake the STAR tests would increase their test-taking skills and could increase their STAR reading scores. It's possible that in a school environment where AR is implemented school-wide, students' STAR and AR test score data are reviewed at meetings or open to public scrutiny. Therefore, allowing students to retake STAR tests would be a wise move for the more experienced AR teachers. This study may have identified two more approaches that can be used to aid African American students in increasing their reading achievement scores as they utilize the AR program.

Similarly, the more years the participants have used AR in the classroom, the more frequently the participants met with their students to discuss their AR progress. Perhaps these experienced AR teachers recognized the value of individual teacher-student conferences in increasing reading achievement. Face-to-face encouragement from a teacher can be a powerful motivation for a student with poor reading skills. The student may then view the teacher as more of a concerned coach than a dispassionate instructor, and put forth more effort to increase his or her reading skills. This study may have identified yet another area that warrants further study.

In addition, the more years the participants have used AR in the classroom, the more rewards for achieving AR targets were given to individual students. The

experienced AR teacher may have recognized that rewards can be used to encourage student reading achievement. Reading motivation may be multi-faceted (Wigfield & Guthrie, 1997), and can have a variety of sources. Although not all students may respond to rewards for reading achievement, the more experienced AR teachers in the study reported behaving in a way that suggests some value in providing a form of recognition for students whose productive efforts increase their reading scores. This study may have identified rewards as another approach that can be used to increase the reading achievement scores of African American students as they utilize the AR program.

The more years the participants have used AR in the classroom, the more library support was provided in their schools. The teachers who have used AR for the most years were in schools that have a librarian in the school library. The value of a school librarian cannot be understated when one is attempting to match a book to a student's specific interests. Although classroom libraries that provide immediate reading choices to students can be part of the experienced teachers' approaches, the school library exposes the student readers to a vast array of literary choices. The decision to have a librarian in the school library is generated by a school administration that realizes the important role librarians play in increasing students' reading achievement scores. In addition, the more years the participants reported having used AR in the classroom, the more likely they were to report having libraries in their classrooms. Providing access to books via a classroom library may be more feasible for the experienced AR teacher because students could easily obtain AR books on a daily basis and avoid scheduled trips to a school library. This finding may indicate that more experienced AR teachers are quite aware of

the necessity of having a classroom library plus a school library as resources for students. This study may have identified two more teaching approaches that merit further study.

The finding that the more years a teacher has used AR in the classroom, the more likely the teacher promoted books with African American characters and written by African American authors is supported by the findings of Bell and Clark's (1998) study of 109 first, second, third, and fourth grade African American elementary school students. The researchers found the children's recall of story events was better when stories depicted Black characters and African American themes. They suggested African American children process information more efficiently when their sociocultural experiences are incorporated in the literature the children read. They also determined the children's reading comprehension was significantly more efficient for stories depicting both African American imagery and culturally related themes than for stories that depicted both Euro-American imagery and culturally distant themes. Bell and Clark concluded culturally relevant reading material should be included in the American school system because of the culturally diverse student population.

These findings suggest the experienced AR teacher has noticed that African American children are more responsive to literature that reflects their culture (Tatum, 2000; Webster & Walters, 2008). Indeed, a related finding indicated the more years the participants have used AR in the classroom, the more likely the participants promote AR books by African American authors. This result may indicate that the mostly White participants in the study could be aware of how their own beliefs and values affect their

students' classroom learning (McMillon & Edwards, 2000), and are possibly striving to familiarize their African American students with African American authors.

Experienced AR teachers in this study promoted African American literature. The result is supported because identification of books by African American authors is critical; books by White authors may unintentionally perpetuate racist stereotypes, while books by African American authors can reflect culturally accurate issues and experiences (Schafer, 1998). Tatum (2000) found using culturally relevant literature with low-level reading African American students engages them, offsets student resistance and apathy, plus provides opportunity for the students to develop deeper processing approaches through reading. This study may have identified two more approaches that warrant further study.

Limitations

While the findings of this study raise many intriguing possibilities in considering the use of AR programs in schools, it is important to also consider potential limitations to these findings. The sample consisted of 25 teacher participants of African American students. This number was small enough that even small differences in responses due to factors other than participants' views (their mood for the day, a recent encounter with a student, or a fight with a parent, for example) could have seriously altered the findings. In a larger sample, the impact of error variance is reduced and the information or "signal" is stronger.

The sample consisted of majority White participants, which reflected the nation's majority of teachers. This may have affected the results because their responses may have been different from members of another ethnicity or culture.

Results may have been influenced by a selection bias in the sample, specifically because the teachers who responded may have done so due to their principal's request. They may have felt compelled to participate in the survey. Other possible participants may have refused to respond due to their principal's request. Another study which did not utilize a supervisor to generate participants might obtain different results. Also, teachers who did not like to use the AR program may have had no desire to respond to the survey, which could have changed the findings.

The initial contact with the teacher participants was by email. This approach may have not been the most effective method of teacher communication. Teachers can often be inundated with emails or requests during the school year. Some participants may have felt overwhelmed and refused to complete an online survey that provided no rewards. Essentially, this method of contacting teachers meant that the participants were people who prefer electronic communication. The responses of teachers who prefer face-to-face interaction, as would have been possible with handing out a survey at a staff meeting, might have enhanced or added a different voice to the results of the study.

Finally, the survey used to collect data may have had limitations. Most teachers reported they did not have access to the STAR program yet eight of the forty-two survey items referred to the STAR program. Perhaps if the survey contained fewer or no questions about the STAR program, the responses would have been different.

Directions for Future Research

The findings from this research on teacher characteristics and the AR program have intriguing implications. Though use of the AR program is diminishing in school systems, its existence in some schools indicates it is still viewed as a viable program by some. The purpose of this study was to discover whether the teacher characteristics were related to how the teachers used AR in their classrooms. Though this study had a more practical rather than theoretical basis, the results emphasize the important role of the teacher.

To resolve the limitations of the study, a sample size of more participants could be included. Allowing participants to select online or pen and paper surveys according to their preferences could also resolve some limitations of the study. Also, determining whether all potential participants have access to the STAR program as well as the AR program before distributing the surveys would have overcome a major limitation of the study.

What is clear is that highly-educated teachers perform differently from their less educated peers. The more experienced teacher and the teacher with more years in the classroom using AR also behaves differently from their less experienced colleagues. And none of that is new. Yet if a teacher or researcher wonders which elements or approaches these experienced AR teachers use with their students, this study could help inform their quest. If an educational administrator wanted to know how some teachers felt about the AR program and wanted opinions from classroom teachers outside his or her school or district, this study might provide information. If a superintendent had to decide whether

to continue to fund the AR program or select another new program, perhaps he or she could use the data from this study to make the decision.

Given the results of this study, more research is needed in the area of the AR program and African American student reading achievement. None of the teachers in this study used AR as his or her sole means to improve their students' reading skills. Unlike me, they had a variety of methods and materials to increasing their students' reading skills and like me, some of them really liked the AR program. As a researcher, I wanted to bring the role and actions of the instructor into the discussion of the value of the AR program. Improving reading achievement and enhancing reading skills among African American students is a top priority for reading researchers (Flowers, 2007). If the AR program could be reshaped so that recommended booklists based on a student's personal interests could appear on a screen instead of merely books at a specific grade level, if multicultural and world literature were evenly distributed among the book selections at every grade level, if poetry and nonfiction were added and if students could rate, review, and comment on each AR book, these changes could constitute a powerful step towards improving the AR program. Though AR program use is diminishing in today's schools, perhaps at some point it can be retooled in manner that will help African American and all children enjoy reading to the extent that all children read well and become well-read.

Conclusions

Most of the research on the AR program has been completed by researchers who were concerned about the advertising claims of the program, decried the biased nature of its board, or compared the reading scores of children who used the program to the reading

scores of children who did not. The voice and characteristics of the teacher who may have needed a tool to increase the reading achievement level of his or her students was missing from the discussion of the value of the AR program. Despite the flaws and valid criticism of the AR program which may have led to its diminishing use in schools today, no effective substitute for the AR program has been implemented. My research emphasized the actions of the teachers who used the AR program and explored whether and how their own backgrounds may have impacted their use of the program. Their approaches ought to be evaluated and measured to see if those approaches should become part of the AR program, instead of being ignored as they are today. Although the approaches were a replication of my activities when I used the AR program to increase the reading achievement scores of my African American students, until I carried out this research, I did not realize other teachers were also stepping outside their AR-prescribed role as monitors of the AR program to engage in activities they believed would help their students.

This study revealed differences in the characteristics and activities of the more highly-educated and experienced teachers who have used the AR program for years and attended AR workshops to assiduously implement a variety of approaches to increase the reading achievement of African American students. The approaches employed by these teachers warrant a further exploration in the literature of the AR program yet no other studies have acknowledged their existence, and stated nothing of their qualities or approaches.

This study provides important grounding for researchers to expand their understanding of the program to include the teachers as the AR program itself has not done by its recommending that teachers should passively serve as monitors. Research has noted the individual teacher as the central catalyst in the classroom—would this teacher be any less powerful when administering the AR program? Perhaps, he or she is not.

The teachers in this study performed beyond the stated expectations of the AR program. Their characteristics and teaching approaches merit further evaluation and study. Though the AR program may become yet another educational fad that is on its way out, the work of the teachers in this study should not also be diminished. The purpose of their work was to increase the reading achievement of African American students. That worthwhile purpose continues.

APPENDIX A

PERMISSION LETTER FROM OAKLAND UNIVERSITY'S
INSTITUTIONAL REVIEW BOARD



Institutional Review Board for the Protection of Human Subjects

DATE: June 18, 2015

TO: Debra Johnson, M.A.
FROM: Oakland University IRB

PROJECT TITLE: Relationships among Multiple Contextual Factors and Implementation of the Accelerated Reader Program as Reported by Urban Teachers of African American Students

REFERENCE #: 577136-1
SUBMISSION TYPE: New Project

ACTION: DETERMINATION OF EXEMPT STATUS
DECISION DATE: June 18, 2015

REVIEW CATEGORY: Exemption category # 2

Thank you for your submission of New Project materials for this project. The Oakland University IRB has determined this project is EXEMPT FROM IRB REVIEW according to federal regulations.

The exempt submission includes the following:

- IRB Application
- Information Sheet, version 6/18/2015
- Recruitment Email
- Online Survey

Please be sure to use the time-stamped Information Sheet, 6/18/2015, in the recruitment and consent of all research participants.

The exemption is made with the understanding that NO CHANGES may be made in the procedures to be followed until such changes have been reviewed and approved by the IRB. Please use the "Protocol Amendment" form found in IRBNet to submit any proposed changes to the IRB. Do not collect data while the proposed changes are being reviewed. Data collected during this time cannot be used.

Please retain a copy of this correspondence for your record.

If you have any questions, please contact Stephanie Edwards at (248) 370-4329 or sedwards@oakland.edu. Please include your project title and reference number in all correspondence with this committee.

APPENDIX B
INFORMATION AND CONSENT PAGE

Information and Consent Page of the Teachers' Survey

Introduction. You are being asked to participate in a research study that is being done by a researcher from Oakland University. This study is being done by Debra Johnson, doctoral candidate, under the direction of Drs. Bong Gee Jang and Gwendolyn McMillon. This study is being conducted as part of the requirements for a doctorate in Reading Education. The purpose of this information sheet is to let you know more about the study so you can decide whether to participate in the study or not. Please read the form carefully. You may ask questions about why the research is being done, what you will be asked to do, the possible risks and benefits, your rights as a participant, and anything else about the research or this form that is not clear. You may talk with your friends and family about this research study before making your decision. When all your questions have been answered, you can decide if you want to be in this study. This process is called 'informed consent.' If you decide to participate, your participation will indicate that you have read this information sheet and that you understand what it says.

Why is this study being done? There is a need for studies regarding the use of the Accelerated Reader program with African American students. The Accelerated Reader program is a computerized reading program designed to increase students' grade level reading scores. African American students generally have lower reading scores than other students. Although the Accelerated Reader program is the most popular literacy software program in America, no research exists regarding methods urban teachers implement when they use the Accelerated Reader program with African American students in grades three through twelve.

The purpose of the study is to determine which qualities of the urban teachers may affect specific elements and methods they utilize when the teachers use the Accelerated Reader program with African American students. The hypothesis is to determine whether the teacher participants' level of educational achievement, years of teaching experience, number of Accelerated Reader workshops attended, years of using the Accelerated Reader program in the classroom and their students' grade level(s) have a significant effect on the components of the Accelerated Reader program and methods that urban teachers may use with African American students in third through sixth grades.

Who can participate in this study? Each participant must be a teacher in the public school district who has experience using the Accelerated Reader program with African American students.

Who is sponsoring this study? There is no sponsor for this study.

Where is this study being done? Because you are being asked to take part in an online study, the official location of the study is Oakland University in Rochester, Michigan.

What procedures are involved with this study? You will be asked fill out a confidential and anonymous online survey of 42 questions generally regarding the use of Accelerated Reader with urban students which may take 10 to 30 minutes. The software will be SurveyMonkey Pro. If you indicate on the survey that you would like to complete an anonymous 10-minute telephone interview arranged at your convenience with the researcher, you will be asked to do so only after you have provided a contact phone number and a pseudonym to protect your confidentiality and anonymity.

How long will participation in this study last? Participation in filling out the survey should take no more than 30 minutes and should take place only once. If the participant chooses to participate in the one-time phone interview, it should take no longer than 10 minutes to answer the 3 questions.

How many people will be participating in this study? Approximately 35 participants are expected to participate in this study.

What are the risks, side effects or discomforts that can be expected from participating in this study? By taking part in this study, you may be at risk for the following: A breach of confidentiality is a possible risk. Breach of confidentiality means that it is possible that individuals not associated with this research may accidentally gain access to information that personally identifies participants. Appropriate safeguards are set in place to minimize a breach of confidentiality (e.g. researcher's office is secure and computers and external storage devices are password protected); but no researcher can ever guarantee that this sort of breach will not occur. However, to minimize risks, no one, not even the researcher will know who has completed the online survey in the SurveyMonkey Pro software. Although the principal of each school will be sending the survey link to a list of the email addresses of the public school district English and/or language arts teachers, no one has any way to know which teachers will fill out the survey because the Survey Pro software does not provide that information to the researcher. Teachers who choose to give the researcher a pseudonym so that she can have a ten-minute phone interview will have their confidentiality and anonymity protected by

the researcher who will destroy the pseudonyms and phone numbers within 10 minutes of completing the interviews.

Are there any known benefits from taking part in this study? There are no direct benefits to you for participating in this study. However, the results of this study may benefit others in the future.

What are the alternatives to participation in this study? You may choose not to participate in this study.

What are the costs of taking part in the study? There is no cost to you for participating in this study.

What compensation is being provided for participation? You will not be paid for participating in this study.

What are your rights if you participate in this study? Your decision to participate in this study is voluntary. You may choose to leave the study at any time, or refuse to answer any questions that may be asked during the study. You will not lose any benefits to which you are otherwise entitled and your decision will not affect your present or future relationship with Oakland University, the researcher, the Reading Department, or the public school district.

What will be done to keep my information confidential? Every effort will be made to keep your study-related information confidential. Personal information regarding your participation in this study may be disclosed only by Survey Monkey Pro software if required by law. Also, your research records may be reviewed by the following groups:

- Regulatory authorities involved in the oversight of research (Office for Human Research Protections or other federal, state, or international regulatory agencies);
- Members or representatives of Oakland University Institutional Review Board (IRB) (in order to ensure that your rights as a research participant are being protected);

When study results are presented at professional conferences or published in professional journals, your name will not be used.

What do you do if you have questions about the study or the rights of research participants? For questions about the study you may contact Debra Johnson at (XXX) XXX-XXXX.

For questions regarding your rights as a participant in human subjects research, you may contact the Oakland University Institutional Review Board, 248-370-2762.

APPENDIX C
THE TEACHERS' SURVEY

The Teachers' Survey

1. What is your current education level?

<input type="checkbox"/> Bachelor's degree	<input type="checkbox"/> Educational Specialist
<input type="checkbox"/> Master's degree	<input type="checkbox"/> Doctorate

2. How many total years of teaching experience do you have?

Less than 1 year 1 or 2 years 3 – 5 years 6 – 10 years 10 years+

3. How many total years of teaching experience in your current grade level(s) do you have?

Less than 1 year 1 or 2 years 3 – 5 years 6 – 10 years 10 years+

4. How many years have you used the Accelerated Reader program in your classroom?

Less than 1 year 1 or 2 years 3 – 5 years 6 – 10 years 10 years+

5. How many Accelerated Reader workshops have you attended conducted by Reading Renaissance or Accelerated Reading?

None One Two Three Four or +

6. How many Accelerated Reader workshops conducted by your school district or your school have you attended?

None One Two Three Four or +

7. Have you been given adequate information as to how Accelerated Reader could be used in your classroom?

Yes No

8. What grade(s) are you currently teaching while using the Accelerated Reader program? Check all that apply.

3 4 5 6

9. How many students do you have for reading or language arts classes? Type the number, please. _____
10. How many African American students do you have for reading or language arts classes? Type the number, please. _____
11. (You may skip this question if you would like.) How would you describe yourself?

White or European American

- Black or African American
- Latino/Hispanic American
- East Asian or Asian American
- South Asian or Indian American
- Middle Eastern or Arab American
- Native American or Alaska Native
- Other

Components of the Accelerated Reader (AR) Program

Please check only one answer for each question unless otherwise specified.

12. How does your school implement the AR Program?
The entire school uses it By grade level
Individual classrooms Only the library
13. In your school, if AR is not used by the entire school, how many classes have implemented it?
N/A None Just me 1-4 classes 5 or more classes
14. Does your use of AR include the use of the STAR program?
Yes No
15. Do you use the Reading Dashboard from the STAR program?
Yes No
16. Does your school or district administration encourage the use of AR?
75 to 100% 50 to 74% 25 to 49% Less than 25%
17. Is the use of AR part of your school's Improvement Plan (SIP)?
Yes No
18. What portion of your reading program is comprised of AR?
75 to 100% 50 to 74% 25 to 49% Less than 25%
19. How often do you give the STAR assessment during each semester?
Not at all Once Twice Three or +
20. Do you share the STAR assessment score with the student? Check all that apply.
No After I analyze it At the end of the quarter or semester
If I am asked
21. Do you allow a student to retake a STAR test if the student wishes to improve his/her score?

Yes No

22. Do you tell the students the average STAR score for the entire class?

Yes No

23. Do you contact a parent or guardian to share the STAR score or other elements of AR?
Please check all that apply.

No To share the STAR score To share progress in AR books

To share skill levels

24. Do you meet with students during a semester to review their AR assessments and quizzes
and what the AR results imply about her/his reading?

Not at all Once Twice Three or more

25. Do you give awards or rewards for achieving AR targets to individual students?

Yes No

26. What awards or rewards do you give individual students? Please check all that apply

None Points toward the grade Certificate of Achievement

Points that can be redeemed

27. Does your school have a library that is open and may be visited regularly?

No Yes, but no staff Yes, with a librarian Yes, with a media specialist

28. Does your library identify AR books with recognizable labels?

Yes No

29. Is your librarian or media specialist knowledgeable about the AR program?

N/A Yes No

30. Does your librarian or media specialist help students find AR books appropriate for each
student?

N/A Yes No

31. While your class is visiting the library, do you help students find AR books appropriate for each student?
Yes No
32. Do you have a library in your classroom that contains AR books?
Yes No
33. Do you attempt to have a wide range of books that may appeal to your students?
N/A Yes No
34. Do you give booktalks (an oral motivational presentation about a book) to your students?
Almost never Rarely Often Almost always
35. Do you allow students to take home books that are “checked out” of your classroom library?
N/A Yes No
36. Do you use any of these motivational displays or other techniques to encourage AR books? Please check all that apply.
No A book table display Bulletin board(s) Read Aloud
Readers’ Theater
37. Do you promote AR books with African American characters?
Almost never Rarely Often Almost always
38. Do you promote AR books by African American authors?
Almost never Rarely Often Almost always
39. Please type a list and/or describe any strategies or methods you use to increase your students’ reading achievement that may not officially be part of the Accelerated Reader program and have not previously been mentioned in this survey. If you do not wish to add any strategies or methods, please leave this area blank.
40. Would you be available for the researcher to contact you by phone for a follow-up interview of 5 to 10 minutes regarding the Accelerated Reader program? If so, please write your phone number and a pseudonym, and your hours of availability on weekdays

or evenings. If you are not available for a follow-up interview, please leave this area blank.

41. Would you like to receive a copy of the final report of this survey's results?

Yes No

42. If you checked yes to question 41, please write the email address where you can receive a copy of the final report in December 2017. To protect your confidentiality and privacy, please use an email address that does not contain your name.

If you wish, you may comment here on any aspect of the Accelerated Reader program and/or on this survey. If you have any questions or concerns, you may contact Debra Johnson at drjohnso@oakland.edu or at (XXX) XXX-XXXX. Thank you for your consideration, expertise, and time.

APPENDIX D

DATA RELATED TO THE SIX TEACHER CHARACTERISTICS

Data Related to the Six Teacher Characteristics

Table 1

Teacher Characteristic: Current Education Level

Level	Percent	Number
Bachelor's Degree	32	8
Master's Degree	56	14
Educational Specialist	12	3
Doctorate	0	0
Total		25

All participants responded to this question.

Table 2

Teacher Characteristic: Total Years of Teaching Experience

Years	Percent	Number
Less than one	0	0
One or two	4.17	1
Three to five	12.50	3
Six to ten	20.83	5
More than ten	62.50	15
Total		24

Only one respondent skipped this question.

Table 3

Teacher Characteristic: Total Years of Teaching Experience at Current Grade Level

Years	Percent	Number
Less than one	4	1
One or two	24	6
Three to five	32	8
Six to ten	16	4
More than ten	24	6
Total		25

All respondents answered this question.

Table 4

Teacher Characteristic: Years of using the AR program in the classroom

Years	Percent	Number
Less than one	36	9
One or two	20	5
Three to five	16	4
Six to ten	12	3
More than ten	16	4
Total		25

All respondents answered this question.

Table 5

Teacher Characteristic: AR workshops attended that were conducted by school or district

Workshops	Percent	Number
None	80	20
One	16	4
Two	4	1
Three	0	0
Four or more	0	0
Total		25

All participants responded to this question.

Table 6

Teacher characteristic: Grades taught while using AR

Grades	Percent	Number
Third	42.86	6
Fourth	35.71	5
Fifth	57.14	8
Sixth	42.86	6
Total		14

Eleven (44%) respondents skipped this question.

Data related to the Eight Elements of the AR Program

Table 7

Element: School implementation of AR program

Implementation	Percent	Number
Entire school uses it	15.00	3
By grade level	5.00	1
Individual classrooms	80.00	16
Only the library	0	0
Total		20

Five participants (20%) skipped this question.

Table 8

Element: School or district administration's encouragement of AR use

Responses	Percent	Number
Yes	68.18	15
No	31.82	7
Total		22

Three participants (12%) skipped this question.

Table 9

Element: School Improvement Plan includes AR use

Responses	Percent	Number
Yes	45.83	11
No	54.17	13
Total		24

Only one participant (four percent) skipped this question.

Table 10

Element: Portion of reading program comprised of AR

Portion	Percent	Number
Less than 25%	100.00	23
25 to 49%	0	0
50 to 74%	0	0
75 to 100%	0	0
Total		23

Two participants skipped this question.

Table 11

Element: How often STAR assessment is administered during the school year

Frequency	Percent	Number
Not at all	86.96	20
Once	0	0
Twice	13.04	3
Three or more times	0	0
Total		23

Two (eight percent) skipped this question.

Table 12

Element: STAR reading assessment score is shared with a student

Responses	Percent	Number
No	84.21	16
After I analyze it	10.53	2
At the end of the quarter	5.26	1
If I am asked	0	0
Total		19

Most teachers (84%) do not share the STAR score with the student. Six participants (24%) skipped this question.

Table 13

Element: Student allowed to retake a STAR test if student wishes to improve his or her score

Responses	Percent	Number
Yes	21.43	3
Total		14

Eleven respondents (44%) skipped this question.

Table 14

Element: Students told the average STAR score for the entire class

Responses	Percent	Number
Yes	7.14	1
No	92.86	13
Total		14

Eleven participants skipped this question.

Data Related to the Ten Teaching Approaches

Table 15

Strategy: Participant contacts a parent or guardian to share STAR score or AR progress

Responses	Percent	Number
No	62.50	10
Yes, to share the STAR score	12.50	2
Yes, to share AR progress	25.00	4
Yes, to share skill levels	12.50	2
Total		16

Nine participants (36%) skipped this question.

Table 16

Strategy: Participant meets with student to review STAR scores and/or AR progress in reading

Frequency	Percent	Number
Not at all	47.06	8
Once	0	0
Twice	17.65	3
Three or more times	35.29	6
Total		17

Eight participants skipped this question.

Table 17

Strategy: Participant gives awards or rewards for achieving AR targets to individual students

Responses	Percent	Number
Yes	73.68	14
No	26.32	5
Total		19

Six participants (24%) skipped this question.

Table 18

Strategy: Participant helps students select AR books when they visit the school library

Responses	Percent	Number
Yes	70.00	14
No	5.00	1
N/A	25.00	5
Total		20

Five participants (20%) skipped this question.

Table 19

Strategy: Participant has a classroom library that contains AR books

Responses	Percent	Number
Yes	80	16
No	20	4
Total		20

Five participants (20%) skipped this question.

Table 20

Strategy: Participant allows students to take home books that are checked out of class library

Responses	Percent	Number
Yes	52.38	11
No	42.86	9
Total		21

Four participants (16%) skipped this question.

Table 21

Strategy: Participant gives booktalks (oral motivational presentation) to students

Responses	Percent	Number
Almost never	18.8	4
Rarely	27.27	6
Often	54.55	12
Almost always	0	0
Total		22

Three participants (12%) skipped the question.

Table 22

Strategy: Participant uses motivational displays or techniques to encourage AR reading

Responses	Percent	Number
No	30.00	6
A book table display	45.00	9
Bulletin board(s)	25.00	5
Read aloud (from AR books)	40.00	8
Readers' Theater	5.00	1
Total		20

Five participants (20%) skipped this question.

Table 23

Strategy: Participant promotes AR books with African American characters

Responses	Percent	Number
Almost never	5.56	1
Rarely	38.89	7
Often	38.89	7
Almost always	16.67	3
Total		18

Seven participants (28%) skipped the question.

Table 24

Strategy: Participant promotes AR books by African American authors

Responses	Percent	Number
Almost never	5.56	1
Rarely	50.00	9
Often	27.78	5
Almost always	16.67	3
Total		18

Seven participants (28%) skipped the question.

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