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Third-Grade Reading Teachers' Views on Achieve3000 for the Florida Standards Assessment Test

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Ennis L. Brinson

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Walden University
2019

Abstract

Third-Grade Reading Teachers' Views on Achieve3000 for the Florida Standards

Assessment Test

by

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MS, American Intercontinental University, 2004

BS, Florida Agricultural and Mechanical University, 2000

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Educational Technology

Walden University

December 2019

Abstract

Educators are challenged with meeting the academic needs of students, particularly in the subject area of reading. School districts purchase tools such as Achieve3000 to help students improve their proficiency in reading; however, implementation of such interventions has not been explored from the educators' perspective. This study explored 3rd grade reading teachers' views on Achieve3000 as a tool for improving reading proficiency and preparedness for the Florida State Standards English Language Arts assessment. The conceptual framework included the theory of social validity and current research as it related to differentiated instruction. This study utilized a basic qualitative approach to answer these key research questions. The participants included 6 3rd grade reading teachers from 3 Florida schools. Individual face-to-face interviews and a focus group interview session were conducted to answer the research questions. Data were analyzed via open, axial, and selective coding to generate the themes. The findings revealed the 3rd grade reading teachers believed that Achieve3000 can be considered a reliable method for improving reading and preparing students for the reading portion of the Florida Standards Assessment. The findings of this study can positively affect social change by providing educators with an increased repertoire of instructional tools to assist them in meeting the needs of all learners, as well as to prepare students for a technology driven world.

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Dedication

I dedicate my dissertation work to my family, friends, and loved ones. I will always appreciate all they have done, especially for helping me to remain focused throughout this journey. Words cannot express how grateful I am for their support throughout the entire doctorate program. All of you have been my best cheerleaders.

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Chapter 1: Introduction to the Study

Introduction

Third-grade is a key level in education when students start reading to learning and move from learning to read (Hernandez, 2011). It is also in the third-grade that students are administered a standardized test for state educational standards. Therefore, having interventions and instruction models are key in harnessing and remediating reading skills, especially for third-grade students (Blachman et al., 2014). Researchers have supported the idea that positive views, opinions, and motivation can increase the efficacy of the remedial tools as well as the performance of the individuals using them (Alderman, 2013; Edmunds, Thorpe, & Conole, 2012; Liaw & Huang, 2013;); one such tool is Achieve3000. Through the review of literature, it was identified that there is a gap in the examination of views and opinions of differentiated instruction through the lenses of third-grade reading teachers. In this study I attempted to review these programs and understand the opinions of those who use these programs. Investigating these factors can be important for educators, students, and parents, as they are key stakeholders.

Interventions for readers who struggle beyond the third-grade tend to be less effective compared to interventions in the early years (Snow & Matthews, 2016). Those with reading difficulties often fail to close the achievement gap in later grades as reading becomes challenging and coursework becomes increasingly difficult. This can lead to maladaptive behavior, poor grades, and in some cases higher incidents of school failure (Hernandez, 2011; Snow & Matthews, 2016). Students, who read below third-grade levels, discover that nearly half of the curriculum in grade four is perplexing due to being

restricted by their capability to absorb the material required to succeed in the fourth grade (Snow & Matthews, 2016).

Chapter 1 includes the significance of examining how those who are expected to utilize specific interventions or resources and how that aligns with the successful implementation and outcomes of the tools. More so, research on the views and perspectives of specifically third-grade reading teachers is limited. The remaining sections of Chapter 1 include: (a) the problem statement, (b) purpose of the study, (c) research questions, (d) conceptual framework, (e) nature of the study, (f) operational definitions, (g) assumptions, (i) limitations, (j) scope and delimitations, and (l) the significance of the study.

Background

Achieve3000, a computerized reading intervention, combines individualized instruction as well as reliable growth measurements (Hill, Lenard, & Page, 2016). It is an online product that is designed for the Common Core State Standards and aims to save educators' time on reading interventions (Shannon & Grant, 2015; Urdegar, 2014). Diagnostic software such as Achieve3000 is developed to provide information concerning students' reading proficiency levels in language arts. Information from diagnostic software, such as Achieve3000, can serve as a method of selection for intervention and/or differentiated instruction (Mulvaney, 2016).

Ardies, De Maeyer, Gijbels, and Keulen (2015) affirmed that content learning has the potential to be increased by way of implementing software programs in courses such as Biology, Chemistry, and Foreign Language. van Aalderen-Smeets, Walma van der

Molen, and Asma (2012) and Byrnes and Miller-Cotto (2016) detailed a growing preference for using Internet-Based software and ePortfolios as a result of collaborative opportunities with colleagues and program training workshops. The research conducted by van Aalderen-Smeets and Walma van der Molen (2013) found teachers believed that computer-based instruction technology was a powerful tool which enhanced teaching and learning. In addition, research conducted by Lee, Tsai, Chai, and Koh (2014) yielded results supporting a more effective outcome of internet-based software within the elementary grade-levels versus that of the secondary grade-levels. All of these studies are significant to the body of research however, there is still a need for similar research with third-grade reading teachers as the subject sample.

The scope of this study surrounded the views and opinions of third-grade reading teachers on the use of differentiated instruction software, such as Achieve3000, to improve reading proficiency and prepare students for the Florida Standards Assessment. The importance of this focus lies in the effective practices of interventions. There is a gap in the literature surrounding this topic as it relates to elementary-level educators and their views and opinions of educational interventions on student reading performance; as well as how prepared students are for standardized reading assessments. Prior to this study, views and opinions mainly targeted secondary educators and students' overall performance. This research can provide implications for the development of effective strategies for differentiating instruction for various students.

Problem Statement

Students possess individual learning differences, so teaching a lesson in one way cannot be expected to accommodate all learners (Morgan, 2014). This can be accomplished by implementing new, innovative, and empirically based remedial programs. A key factor in providing effective and successful interventions is acceptability (Elliot, 1987; Daly, 2015). That is, teachers and students should believe the resource to be important and easily adaptable (Morgan, 2014).

Achieve3000, an online differentiated instruction program that targets math and reading, considers differentiation as presenting instruction in alternative ways so that students with varying strengths and weaknesses can all benefit (Shannon & Grant, 2015; Urdegar, 2014). Achieve3000 processes are inspired by the work of R.C. Anderson on prior knowledge, Linda Duncan on vocabulary development, Michael Kamul on the role of technology, and Carol Ann Tomlinson on differentiation (Hill, Lenard, & Page, 2016). Furthermore, Achieve3000 operates from the framework of college and career readiness and preparation; students' ability represents this to comprehend non-fiction content and achieve Lexile scores of 1350 or greater on the program (Hill et al., 2016). The content included in the Achieve3000 program is based on theoretical framework that connects reading and writing proficiency to overall educational performance, college readiness, and career preparedness (Hill et al., 2016). To assist students in achieving this, Achieve3000 offers an assessment which establishes a baseline. Students are administered non-fiction passages that adjust to their reading levels following a brief assessment of their comprehension. By doing this, it allows for a more individualized

approach to instruction because the passages are adjusted to the students' abilities and performance. Additionally, this can prevent valuable instructional time from being consumed by content that may be too difficult or too easy (Hill et al., 2016).

Previous literature has discovered the efficacy of Achieve3000 as it relates to increasing student motivation in reading (Hill et al., 2016). This literature is limited in the exploration of how the program is viewed as a differentiation tool among third-grade reading teachers (Blake & Cutler, 2003; Wu, 2013). An additional factor in this problem relates to the absence of research on the views and opinions of third-grade reading teachers on the use of differentiated instruction software, such as Achieve3000, to improve reading proficiency and prepare students for the Florida Standards Assessment. Furthermore, the present limited literature does not address Achieve3000 as it is viewed in elementary grades and among teachers.

Hill et al. (2016) considered Achieve3000 as an innovative way to incorporate technology into educational practices. Programs like Achieve3000, can increase technological use among when it comes to interventions. Furthermore, Achieve3000 has served millions of teachers and students in the United States and have been rated highly as a promising educational company, by Inc. Magazine (Inc. Magazine, 2015). Research on the views and opinions of specifically third-grade teachers, is relatively scarce. This strengthens the argument for additional exploration into the views and opinions of teachers, especially due to the increase in interventions and changes in the field of education. This qualitative study sought to examine the views and opinions of third-grade reading teachers on the use of differentiated instruction software, such as

Achieve3000, to improve reading proficiency and prepare students for the Florida Standards Assessment.

There are gaps in the literature as it relates to exploring the views and opinions of third-grade reading teachers. Furthermore, much of the research in this area focused on examining views of secondary grade-levels, with little emphasis on primary grades. Moreover, a gap in literature was apparent in the investigation of the views and opinions of third-grade reading teachers on the use of differentiated instruction software, such as Achieve3000, to improve reading proficiency and prepare students for the Florida Standards Assessment.

Purpose of the Study

The purpose of this basic qualitative study was to investigate the views and opinions of third-grade reading teachers on the use of differentiated instruction software, such as Achieve3000, to improve reading proficiency and prepare students for the Florida Standards Assessment. These constructs had not been directly examined in research and this study sought to reduce the existing gap. Data pertaining to the study was collected by way of individual face-to-face interviews and focus group interviews with third grade teachers being the respondents. Achieve3000 provides information to assist educators in decision making with regards to effective intervention for students and their needs in a specific area (i.e. reading) (Hill et al., 2015). This qualitative study sought to examine these constructs to identify barriers that may exist in the application and acceptance of differentiated instruction interventions. Research findings can be used to inform instructional practice by offering ideas on how to effectively address all students' learning

needs, especially when new measures like Achieve3000 are introduced. This is not to say the information will affect education as a whole but it can help to make change using Achieve3000 to differentiate or supplement reading instruction.

Research Questions

1. What are the third-grade reading teachers' views of Achieve3000 as a tool in preparing students for the Florida Standards Assessment in English Language Arts?
2. How do third-grade reading teachers perceive the use of Achieve3000 as a tool to improve students' overall reading ability?

Conceptual Framework

Students vary in ability/disability, culture, gender, motivation, language, socioeconomic status, personal interests, and more (Kumar & Hamer, 2013). Tomlinson and McTighe (2006) and Northrop and Killeen (2013) postulated that Differentiated Instruction focuses on how, who, as well as what we teach by concentrating efforts on methods which will ensure that varied individuals learn effectively. Differentiated Instruction is a framework for effective instruction which involves offering individual learners various ways to learn effectively, regardless of differences in ability (Birnie, 2015; Kirkpatrick, 2016; Tomlinson & McTighe, 2006). Educators will have the ability to better plan for their curriculum if they are aware of these varieties. There are two major theories which will be considered for the present study: differentiated instruction and social validity. These constructs will be further discussed in chapter 2.

Differentiated Instruction is considered a framework and outlook on the method of instruction as opposed to a universal instructional method (Benjamin, 2014; Tobin & Tippet, 2014; Tomlinson, 2008). A major purpose of this study was to investigate the views and opinions of third-grade reading teachers on the use of differentiated instruction software, such as Achieve3000, to improve reading proficiency and prepare students for the Florida Standards Assessment. Thus, students can experience this software without confounding comparison to similar software. Consideration should be placed on how effective educators can be in the implementation of remedial resources. By considering how teachers view and accept newly obtained resources and technologies, education can begin to notice a more effective approach to instructing diverse student populations and successfully meet those students' needs.

Given the rapidly changing educational demographics in the country, educators have been tasked with designing and implementing interventions that are acceptable and effective across culturally and educationally diverse groups. Effective intervention implementation relies heavily on application and purpose. Therefore, intervention targets should be reviewed in terms of their social validity. Social validity is concerned with three basic goals: (a) the social importance of the effects of the intervention, (b) the social acceptability of the intervention procedures designed to achieve those goals, and (c) the social significance of the intervention goals (Newton & Shaw, 2014 & Wolf, 1978). For instance, dissatisfaction with resources and interventions are often related to it not being deemed relevant to treatment. Additionally, sustaining an intervention in practice is heavily dependent on how useful it is and how applicable it is to the setting.

Nature of the Study

This study was conducted within the qualitative research framework. Interviews used in qualitative research methods produce qualitative data and focus group interview data collection strategies that fall within qualitative research frameworks provide detailed and insightful responses through dialogue and open-ended questioning (Marshall & Rossman, 2014 & Nachmias & Nachmias, 2008). Researchers have documented and determined that the use of polls and surveys generate quantitative data, while focus groups and interviews provide qualitative data (Merriam & Tisdell, 2015). Moreover, focus groups permit for the collection of a range of data or examination of unanticipated issues. Therefore, quantitative methods cannot be considered as best suited for the purpose of this study. Qualitative data empowers researchers by allowing them to gain an understanding of interactions and interview feedback from participants.

Qualitative research contends that information is not obtained through interviews alone; yet, it is gathered and interpreted through the opinions of participants whom are directly involved in the activities (Dawidowicz, email communication, December 8, 2017). The research questions in this study were analytical in nature and were structured as such to explore third-grade reading teachers' views on a remedial reading intervention's influence on their students' reading proficiency and preparedness for a standardized English language arts exam.

When choosing the appropriate methodology, consideration must be given to the aim and nature of the research. Therefore, due to the nature of the research questions, this was a qualitative study with basic qualitative analysis. The researcher conducted

individual face-to-face interviews with six third-grade reading teachers as well as conducted a focus group interview session with the same group of six third-grade reading teachers. Six third-grade reading teachers from two southeastern schools were selected for this study. The primary setting for this study occurred within an urban school district in a southeastern state.

Qualitative data empower the researcher to gain an understanding of behaviors, interactions, and interview feedback from participants. The qualitative data for this study included: (a) individual face-to-face interviews with a selected sample of six third-grade reading teachers, (b) focus group interview with the same sample of six third-grade reading teachers, and (c) analysis of the researcher's reflective journal of the individual face-to-face interviews and focus group interview. These methods were incorporated into the study to help increase the knowledge of how educators view the effectiveness of Differentiated Instruction, as with Achieve3000 during reading.

Operational Definitions

Common core: Common standards were developed to prepare students to compete in the global workforce by providing a method to effectively conduct comparisons of student progress from state to state (Shanahan, 2015).

Diagnostic software: - Evaluates student performance with comprehensive diagnostic results across the fundamental areas in reading, offering dependable and individualized subsequent steps for instruction along with an effective measure of student progress (Hill et al., 2016).

Differentiated instruction: - The process of matching learner interests, preferred learning style, and readiness that he or she demonstrates in an effort to ensure how and what they learn (Tomlinson & Moon, 2013).

Florida Standards Assessment: Florida students take a test tied to the state's reading standards. The standards assessments are intended to present educators, policy makers, and parents with data concerning the degree to which students gain knowledge of the Florida standards (Florida Department of Education, 2015).

Lexile Level: The Lexile Level is a popular method used by schools to measure a reader's ability (Scholastic, 2018). The National Institute of Child Health and Human Development funded the education assessment and research team which developed the Lexile Framework. Lexile scores are determined by taking standardized reading tests of the Scholastic Reading Inventory test which converts the results into a Lexile measure. It is important to match readers with their ideal text and the Lexile framework is a good place to begin as it targets areas in need of intervention as well as encourages achievement across grade levels (Scholastic, 2018).

Assumptions

There were three assumptions for this research study. One assumption of this qualitative study was that the teachers participating would be candid and offer reliable data. Participants were expected to truthfully answer the interview and focus group interview questions to the best of their knowledge. This was imperative because the findings of this study are grounded in the views and opinions of the third-grade reading teachers. Evidence to support using individual interviews and focus group interviews as

forms of data collection is provided in Chapters 2 and 3. It was assumed the participants had a genuine interest in contributing to the research and did not have other aims, such as impressing their employer because they agreed to be in this study. Furthermore, it was presumed that my presence did not have any influence on the participants and/or the responses they provided.

Scope and Delimitations

This study included six third-grade reading teachers and this research was limited to a suburban school district in north-east Florida. The elementary school where the research took place was a Pre-K through 5th grade Title I school with 20 classrooms and an enrollment of 409 students. Due to the low socio-economic status of the area, all students received free or reduced meals. Every class was over the expectations of the class size amendment set by the district. In pre-kindergarten through third-grade that limit was 18 students to a class. The intended district was 44% African-American, 37% White, 10% Hispanic, and 9% other with some of the higher achieving schools in the state of Florida. Transferability of this qualitative study was set to the degree that other researchers may be able to generalize more studies in order to investigate the opinions of teachers and students in other grades and general education classrooms.

Limitations

There were limitations that go along with the multiple assumptions, which precluded the study. The limitations of this study can be labeled as the small sample size; the focus on preparedness of testing and not actually testing performance, and the varying levels of exposure to technology and how it played a part in the views of those who use

it. I delimited or restricted my study by only involving third-grade reading teachers within the school district without restrictions related to ethnicity. I did not include individuals who do not teach within the same school district. The objective for the research was to conduct interviews, and a focus group. The research setting parameters of this study limited acquaintances and friends in order to limit biases, during the interviews, and focus group. Furthermore, there were no acquaintances and or friends that would influence the results of the study.

Additionally, the study was geared towards the views of Achieve3000 which is selected and supplied by the district administration, one could presume that the responses of the participants could be less candid when requested to answer questions and critique said program. Furthermore, there was also the assumption of situational variables being a barrier to this study; as the data was to be collected during a critical period within the school year where standardized testing is the main focus and the researcher's interference may be seen as a distraction. These variables could potentially skew the results and in turn alter the outcome of the study protocol.

Significance of the Study

With educators showing interest in differentiated instruction, there has been an increase in products and programs that aim to provide alternative modes of instruction for those students who have difficulty retaining information in the traditional way. Through the use of differentiated instruction, those nonconforming students can have access to the same information, others are presented with. Therefore, identifying programs that are adjustable to the various learning styles of the students was crucial.

State standards are intended to provide the blueprint for student learning within a specific grade-level which is expected to prepare them for the next level of instruction for subsequent years. These standards and curricula are generated by district and state leaders and are facilitated by educators. Additionally, these standards are measured through the use of standardized assessments which seek to examine the students' proficiency of these grade-level standards. Research findings can be used to inform instructional practice by offering ideas on how to effectively address all students' learning needs.

Once teachers begin to meet learners where they are as opposed to where they feel the student should be, they can really begin making strides in reducing achievement gaps at local levels. This research aligned attractively with the review of literature that was concluded in Chapter 2 since by definition, qualitative research is an effort to make sense of how individuals experience and how they perceive the world. The expectation was that this study could be used as a tool to implement change in the school district with regard to how reading instruction is approached and the need for alternate method of instruction.

This study sought to gain further insight into the views and opinions of third-grade reading teachers on the use of differentiated instruction software, such as Achieve3000, to improve reading proficiency and prepare students for the Florida Standards Assessment. The performance feedback provided by diagnostic programs may help to identify strengths and weaknesses of the student which might be beneficial for educators, students, and parents. Furthermore, reviewing this data may provide the

students with opportunities for developing goals, promoting accountability, and self-monitoring.

This study can be viewed as meaningful because it allowed for the exploration into the views and opinions of third-grade reading teachers and their use of differentiated instruction software. This research can serve as a concise example for practitioners of practical uses of adaptive diagnostic software such as Achieve3000 for teaching and learning. These findings can positively affect social change by increasing instructional effectiveness for educators which can assist primary students become better readers. What is more, the implications for social change have particular utility for those educators whom desire to transition away from traditional instruction to differentiated instruction with their students. In addition, the social change focus is to include stakeholder opinion and feedback in the types of resources educators and educational institutions implement. This may help to ensure that they are not only utilized with fidelity, but also with the understanding to encourage the validity and reliability of the resource by way of teacher, student, and parent buy-in.

Implications for Social Change

This study sought to examine the views and opinions of third-grade reading teachers on the use of differentiated instruction software, such as Achieve3000, to improve reading proficiency and prepare students for the Florida Standards Assessment. These views and opinions were examined through interviews, and a focus group investigating the use and result of the program. By targeting third-grade teachers, this study promoted dialogue between the key stakeholders who are tasked with

implementing this reading program. Gaining insight into how programs, interventions, and other resources are viewed in real-life and practical purposes allows policy makers and administrators the opportunity to evaluate the reliability and validity of said resources.

All too often, educational institutions pour thousands of dollars into “new and innovative” resources that promise to generate a specific result. Yet, these institutions fail to see these promises come to fruition due to many factors. Many of those factors relate to fidelity, consistency, and teacher and student buy-in which are important aspects of successful implementation. Policy makers and administrators often neglect the importance of teacher feedback; which could provide key points on the pros and cons of the resources. This study took a look at these factors to determine the degree to which the use of differentiated instruction software improves third-grade students’ reading proficiency and preparation for the Florida Standards Assessment.

Summary and Transition

In sum, reading can be viewed as the cornerstone of academic achievement. The third-grade reading standards developed by the Florida Department of Education (FLDOE) are expected to significantly reduce the potential need for remedial reading in later grades as well as lower the possibility of students dropping out due to their deficiency in reading (Florida Department of Education, 2014). Standards-based approaches in the field of education seek to enhance instruction for learners on all levels by incorporating clear achievement standards and assisting students achieve them. There are numerous educational resources developed to accomplish these goals. Computer-

based learning has recently developed to allow educators to tailor the instruction to the students' individual needs.

This investigation was conducted through the use of teacher feedback, via individual face-to-face interviews and focus group interview. Chapter 2 consists of an overview of past and the most current literature pertaining to differentiated instruction and social validity, including background information, the importance of reading, learning styles, teacher views and perspectives, and using technology to differentiate instruction. The unique issues associated with differentiating instruction will be covered extensively in the subsequent review the literature.

Chapter 2: Literature Review

Introduction

Chapter 2 contains a review of the research and literature related to the views and opinions of third-grade reading teachers on the use of differentiated reading software. There will be a summary of the findings from previous studies along with a background and review of the related literature. A detailed description of the literature review, conceptual framework, and summary of the present study's focus were outlined in subsequent sections.

Students are individuals with varying learning preferences and background experiences (Heacox, 2012; Jacobson, 2001; Matamoros, 2018; Strogilos, Tragoulia, Avramidis, Voulagka, & Papanikolaou, 2017; Tomlinson, 2014; Westwood, 2018). Importance is placed on teachers' understanding this fact and finding new and innovative ways to present instructional information to their students (Lin-Siegler, Dweck & Cohen, 2016; Moore, 2014; Muijs & Reynolds, 2017). However, using methods of differentiated instruction affords educators the opportunity to acknowledge those differences and tailor lessons to the student's current educational levels (Birnie, 2015; Dugas, 2017; Morgan, 2014;). Successful implementation of these interventions will result only if the participants view the supports as beneficial and useful (Suprayogi, Valcke, & Godwin, 2017; Watts-Taffe et al., 2012). Watts-Taffe et al. (2012), sought to investigate how the differentiated instruction computerized reading program was viewed by the third-grade teachers with regard to preparing them for the Florida Standards Assessment, English Language Arts section. Qualitative data was collected via individual face-to-face

interviews and a focus group, involving third-grade reading teachers. In this chapter, I covered differentiated instruction, social validity, early reading, learning styles, views and perspectives, the effectiveness of differentiated instructions as well as the need for differentiated instruction. These variables were imperative to the concept of computer-based differentiated instruction and the impact it has on remedial education of third-grade readers.

According to Benjamin (2014), differentiation affords students several alternatives for learning and demonstrating their content knowledge. It is easier for students to remember content in the future when they are engaged and have a connection to the content. The subject matter communicated is student driven so it can be made relevant to all learners (Heacox, 2012; Strogilos et al., 2017; Tomlinson, 2001; Westwood, 2018). Extant research postulated that Differentiated Instruction includes various teaching methods which challenge students based on prior knowledge, accommodates their learning style, and tailors to their learning interests (Brookhart, 2017; Dixon et al., 2014; Hamlin, & Peterson, 2018; Justicia-Galiano et al., 2016; Little, Hauser, & Corbishley, 2009; Luttenberger, Wimmer, & Paechter, 2018; Orlich, Harder, Trevisan, Brown, & Millie 2016; Stronge, 2018). Additionally, Shyman (2011) outlined the importance of educators identifying students' level of readiness in order to achieve academic success through differentiated instruction. Furthermore, educators are given the task of offering assignments which do not overwhelm learners yet create a challenge as well as guarantee the reliability of curriculum.

Literature Review Strategy

Locating relevant research which pertained to this study was conducted by way of an exhaustive search utilizing manual as well as electronic searches along with conversations with professionals in the field. Among the first resources used to collect research was Walden University's electronic database of which SAGE publications, Educational Resources Information Center (ERIC), the International Society for Technology in Education (ISTE), the Association for Education Communications and Technology, books, journal articles, websites, and Walden University's database housing previous dissertations were examined. Likewise, the Bielefeld Academic Search Engine, Google Scholar, Infomine, Infotopia, and the Virtual Learning Resources Center were used.

The initial focus of these resources was to investigate literature relating to Differentiated Instruction. Some key terms used were inclusive of the phrases "inclusion" and "differentiated instruction" with various combinations of said terms.

Keywords: Differentiation, differentiated instruction, online learning, cyber class, cyber instruct, cyber learn, cyber school, e-learning, electronic class, electronic learn, electronic school, electronic student, online class, online instruct, online school, virtual class, virtual instruct, virtual learn, web-bae class, web-based instruct, web-based learn, web-based school, differentiate, individualize, personalize, self-pace, and self-guide.

All articles which were in line with the aspects of this research such as views and opinions of teachers and differentiated instruction, were considered and analyzed for their

potential addition to the literature review. This search returned numerous articles, nevertheless upon analysis of the summaries it was discovered that many of them would not be relevant to apply to the focus of this study. The articles which related closely to the focus of this study were selected.

This study was based on three urban elementary schools in the north-eastern region of Florida. Therefore, priority was given to research articles related to urban and/or elementary school educators. A manual search was conducted for recent publications of peer-reviewed journals which concentrated on Differentiated Instruction using the same topics as before. Subsequently, few articles were found. Audits of the reference lists of the selected articles were conducted to determine if they could be used in this review. If the author of a source cited another author, I did a follow up, researched, and read the original body of work.

Differentiated Instruction was challenging to research since it holds multi-faceted qualities. Many of best practices in education are combined in this student-centered, holistic approach. Differentiated Instruction can be viewed as a mixture of a number of educational practices and theories, and not on a singular entity. Currently, the majority of empirical research that is available which can be viewed as valuable has focused on gifted students. Even though there is limited research on Differentiated Instruction, most of the components and strategies are based on years of research relating to instructional practice. This gap in research provided the rationale and basis for further exploration into the views and opinions of teachers' as they relate to the use of differentiated software used by their students in preparation for the Florida Standards Assessment Test.

Conceptual Framework

Differentiated Instruction

Differentiated Instruction is a theoretical framework designed to target five educational variables: (a) goal-oriented curriculum, (b) progress monitoring, (c) meaningful activities, (d) flexible grouping, and (e) supportive environments focusing on student strengths and weaknesses (Firmender, Reis, & Sweeny, 2013; Shaunessy-Dedrick, Evans, Ferron, & Lindo, 2015; Suprayogi, Valcke, & Godwin, 2017 Tomlinson & Moon, 2013). According to Alavinia and Farhady (2012) and Logan (2016), differentiation works on the premise to restructure the manner in which students are assessed what is taught, and how it is taught. In sum, the focus in differentiation seeks to safeguard successful implementation of educational resources for educationally diverse populations.

Tomlinson (2001) and Wan (2016) postulated that differentiation can be viewed as a valid approach to promoting equity and excellence as well as addressing what a wide variety of learners require. However, if we visit the classrooms of many educators, we will notice many them employing a universal method rather than individualizing the instruction based on students' needs and limitations (Colvin-Sterling, 2016; Jackson & Evans, 2017; Joseph, Thomas, Somonette, & Ramsook, 2013; Kamarulzaman, Azman, & Zahidi, 2017; Knowles, 2009; Simpson & Bogan, 2015). The theoretical foundation of this study offered the basic support for systematic exploration of the concepts related to this research problem and phenomenon.

Social Validity

In the educational field, it is widely believed that an intervention, product, or other educational resource is only as good as the individual tasked with using it. Therefore, it is idealistic that the person tasked with utilizing a resource would be able, willing, and competent enough to employ it to its fullest potential and its intended use. The concept of Social Validity targets just that. Those who research on intervention implementation and efficacy, often seek out the degree of satisfaction and acceptability of those whom implement and receive such treatment (Bhattacharya, 2017; Guadalupe, Martinez-Basurto, Lozada-Garcia, & Ordaz-Villegas, 2016; Lewis, Nicholls, & Ormston, 2013; Lindo & Elleman, 2010; Ritchie, Silverman, Kim & McNeish, 2016; Taylor, Bogdan & DeVault, 2015; Walliman, 2017). Social Validity is related to subjects' perspective on effects of practice, procedures, and/or goals with regards to treatment and interventions (Creswell & Poth, 2017; Fuchs & Fuchs, 2001; Lune & Berg, 2016; Merriam & Tisdell, 2015; Petrov, Alloghani-Hussain, Al-Jumeily, Mustafina & Slavina, 2017; Seidman, 2013;). This concept is associated with uncovering, while also correcting, the barriers of successful implementation of empirically based practices in human services and education (Guadalupe et al., 2016; Lewis, 2015; Lindo & Elleman, 2010; Silverman et al., 2016).

Fuchs and Fuchs (2001); Leko (2014); Petrov, Alloghani-Hussain, Al-Jumeily, Mustafina & Slavina, 2017; and Snodgrass, Chung, & Halle, (2018) all iterated the effectiveness and sustainability of an intervention requires real-life application and evaluation from key stakeholders. Accurate depiction of the use of an intervention or

resource is by examining its use in actual classrooms with actual teachers, versus a pseudo classroom in an experimental setting. Under the social validity framework, interventions are said to have the greatest possibility of influencing treatment and implementation if it is evaluated by true stakeholders and their opinions, views, and attitudes of said interventions in true settings. In this study I identified third-grade reading teachers' views of the use and efficacy of a differentiated instruction software program, Achieve3000.

Literature Review

Need for Differentiated Instruction

In the past, education has been justified in reaching students in the same ways because it has been geared toward teaching learners as if they are variations of the same individual (Bernstein et al., 2018; Blake & Cutler, 2003; Firmender et al., 2014; Shaunessy-Dedrick, Evans, Ferron, & Lindo, 2015; Spence, Fan, Speece, & Bushala, 2017; Suprayogi, Valcke, & Godwin, 2017;). When it comes to differentiated instruction, this can be seen as a mistake. According to Banks (2015), Cohen and Lotan (2014), and Tharp (2018), classrooms are made up of heterogeneous groups of students. Since learners come to schools with an array of differences, at any given time a classroom can be made up of an extensive array of interests, capabilities, and learning preferences. Fitzgerald (2016) and Wu (2013) postulated that differentiation allows students' access to instruction within the typical presentation of instructional material. In an attempt to develop essential lessons which can turn into success for the learner, Differentiated Instruction necessities are based on the student's prior understanding.

There is an overall consensus among researchers that knowledgeable educators realize that all students are unique as well as need and warrant changes to their learning experiences to accommodate their individual abilities, interests, views, and needs (Calvert, 2016; Casey, & Dekkers, 2017; George, 2005; Shear et al., 2014; Knight, Suprayogi, Valcke, and Godwin, 2017; Valiandes, 2015; Walpole & McKenna, 2017).

Readers who struggle can gain from differentiated instruction by way of structuring subject areas that seek to challenge and encourage learners through alternative activities (Cennamo, Ross, & Ertmer, 2012; Wright, 2015). Research suggests that the need to read at grade level is one of the obstacles facing students. The consequences of students who cannot read on grade level can affect other courses because they cannot absorb the content (Allington, 2011; Howard & Scott, 2017; Masullo, 2016; Schmoker, 2018; Shaunessy-Dedrick, Evans, & Lindo, 2015). They also presume that below average grades in other courses can be related to students not being able to read proficiently, therefore reading competencies will benefit learners in other courses.

Researchers such as Blachowicz and Ogle (2017); Calderon and Slakk (2018); Little, Muller, and Kaniskan (2011); and Pressley and Allington (2014), and Hedgcock and Ferris (2018) noted the heterogeneity of modern-day classrooms in which instructors frequently function within tough and unpredictable environments. The heterogeneous populations of learners pose diverse and unique challenges for teachers. Furthermore, as the range amongst pupils rise, so may the strategies and methods of teaching through differentiation. Moreover, Tomlinson and Santangelo (2012) discovered the expectation of public educational institutions to standardized curricula. These curricula seem to limit

the ability to individualize instructional content in the manner that a diverse and heterogeneous group would require.

Universal and traditional methods of instruction have no concern for pertinent individual variances since all learners are educated by way of identical content and directed down a similar path (Levy, 2008; Subban, & Round, 2015; Tsai, Tsai, & Hwang, 2016; Zhao, 2018). Dixon et al., (2014), Roose, Vanteghem, Vanderlinde, and Van Avermaer (2019) and Sharp, Jarvis and McMillan (2018) postulated that Differentiated Instruction can be viewed as the efforts of educators in responding to the differences among students in their classroom. Moreover, John and Joseph (2015) postulated that educators who adjust the manner in which they teach with the intention of creating learning experiences which are best suited for individuals or small groups are differentiating instruction. There appears to be some degree of understanding and knowledge of the importance of differentiating instruction; however, there continues to be a disconnect with practice. Furthermore, researchers have explained that educators only need to think of ways to enhance the methods of Differentiated Instruction and not to concern themselves with reinventing it (De Neve & Devos, 2017; Gaitas & Alves-Martins, 2017; Heacox, 2018; Kise, 2017; Pettig, 2000).

Bodine (2019); Brookhart (2017); Gage, Lierheimer, and Goran (2012); Murry (2018); Ng, Bartlet and Elliott (2018); Orlich et al., (2012); Stronge (2018); Tricarico and Yendol-Hoppey (2012) restate the importance of differentiating instruction so that learners are provided with a robust and challenging environment that is also able to provide learning materials based on their specific needs all through the class. They gave

emphasis to varied instructional activities to assure quality products by catering to learner interests and profiles and did not focus entirely on the curriculum. Achievement is highly related to the effort students demonstrate (Maddox, 2015; Reeves & Stanford, 2009; Ritherford, Buschkuel, Jaeggi, & Farkas, 2018; Zimmerman & Kitsantas, 2014). They recounted how learning was facilitated through differentiating instruction because educators directed their students' attention towards their individual needs as an alternative to concentrating on content.

Several researchers observed how inconsistent the practice of differentiating instruction is in modern classes (Conley, 2015; De Neve, Devos & Tuytens, 2015; Deunk, Doolaard, Smalle-Jacobse, & Bosker, 2015; Gregory & Kuzmich, 2014; Hillier, 2011; Muir et al., 2010; Pham, 2012; Swicord, Chancey, & Bruce-Davis, 2013). Additional literature postulates that if students' academic needs are not met in the teacher-centered class, their development can be negatively impacted (DeMitchell, DeMitchell, & Gagnon, 2012; Forster, Kawohl & Souvigner, 2018; Green, Baker, & Oluwole, 2012; Herrera, Kavimandan, Perez & Wessels, 2017; Ismajli & Imami-Morina, 2018; Kise, 2017; Pullin, 2015; Sweeney & Mausbach, 2018). Furthermore, curriculum choice is not identical to differentiated instruction since differentiation involves a focus on learning profiles, interests, processes, and content (Dijkstra, Walraven, Mooji & Kirschner, 2016; Grosseman et al., 2014; Henriksen, Dillon, & Ryder, 2015; Hertberg-Davis, 2009; Pereira, Tay, Maeda & Gentry, 2019; Weisberg, Sexton, Mulhern, & Keeling, 2009).

An overall consensus within the literature proposes that differentiated instruction approaches are effective for all learners, irrespective of student ability but at the outset, differentiated instruction was thought to be a suitable strategy when accommodating students viewed as talented or gifted (Birnie, 2015; Blecker & Boakes; 2010; Connor et al., 2013; Dare & Nowicki, 2018; Heacox, 2012; Kanevsky, 2011; Mills, et al., 2014; Mulholland & O'Connor, 2016; Santamaria, 2009). Furthermore, Obiakor et al. (2012) and Welch (2011) have discussed the benefit of generalizing differentiated instruction practices to general education classrooms as opposed to only in special education settings. There is a belief that education works optimally when nurturing and reflective to the entire student as opposed to being fixed on exclusiveness and intelligence (Rotatori & Algozzine, 2012; Santamaria, 2009). Furthermore, Obiakor et al. (2012) and Welch (2011) also assumed that methods such as these are better suited and designed to support learners who have difficulty with learning.

According to Ary, Jacobs, Irvine and Walker (2018); Hawkins (2009); Mertler (2016); Mertler (2018); Smith (2015); Pidgeon and Yates (2018); and West and West (2016), and classrooms are filled with students of different aptitudes and abilities. Regardless of this, education leaders are tasked with providing general education teachers with the tools they need to become superior teachers. Differentiating instruction has been found to improve student performance (Aleven-McLaughlin, Glenn, & Koedinger, 2016; Bailey & Williams-Black, 2008; Booth, Lange, Koedinger, & Newton, 2013; Loibl, Roll, Rummel, 2017; & Suprayogi et al., 2017), address individual deficits, and remediate those deficits (Chamberlin & Powers, 2010; Dennen & Spector, 2016; Siegle, 2014).

Importance of Reading

As students enter third-grade, there is a theoretical shift in which students begin to read for understanding, as opposed to learning to read in earlier years. This shift in focus has stemmed from the federal and state standards which are requiring students to be able to demonstrate reading comprehension proficiency upon completion of third-grade (Balkcom, 2014; Connor et al., 2014; Conner, 2018; Minor, 2017; Phillips, Johnson, Weiland, & Hutchison, 2017; McKeown, Crosson, Moore, & Beck, 2018; Walker-Carlor, 2016;). In the state of Florida, students are administered standardized assessments which are used to measure the educational standards placed on each grade level. This initiative was brought on by the No Child Left Behind Act (NCLB) in 2001 (Balkcom, 2014; Barth, Barnes, Francis, Vaughn, & York, 2015). The goal of this NCLB initiative was to encourage states to adhere to specified testing levels and improve federal reading scores by 2014.

Bashir and Hook (2009), Habib (2016), and Stevens, Walker, & Vaughn (2017) put forth evidence which displayed how increasing reading fluency can be viewed as essential learners as they begin to make connection to comprehension and away from word recognition. As a result, comprehension is facilitated in the reading process by way of phonics and fluency in reading. Furthermore, when students do not attain the skill needed to distinguish words routinely, they will require more cognitive capability to make out words. We know how important decoding is as it relates to reading comprehension and having difficulty doing so has negative implications (Britt, Rouet, &

Durik, 2017; Catts, Herrera, Nielson, & Bridges, 2015; García, & Cain, 2014; Kodan, 2017; Kodan & Akyol, 2018; Rasinski, Rikli, & Johnston, 2009).

Third-grade is a pivotal year in a student's educational life as expectations began to shift from skill development to skill permanence (Balkcom, 2014). Students who are not at or above literacy expectations by the time they exit third-grade, are confronted with the challenges of meeting expectations of later grades (Brett, 2018; Conley, 2014; Fiester, 2010; Forzani, Rhodas, Aykel, Kennedy, & Timbrell, 2015; Jones, 2018; Leu, Manfra et al., 2017; Morningstar, Zagona, Uyanik, Xie, & Mahal, 2017). Additionally, this achievement gap has presented further barriers for student success (Cheryan, Ziegler, Plaut, & Meltzoff, 2014; Ferrer et al., 2015; Hernandez, 2011; Rasinski et al., 2017; Kern, Graber, Shen, Hillman, & McLoughlin, 2018). These barriers included inadequate performance in other subjects (Austin, Vaughn, & McClelland, 2017; Inns, Lake, Pellegrini, & Slayin, 2019; Reese, 2019; Snow et al., 1998), maladaptive behaviors and emotional disorders (Alnahdi, 2015; Arnold et al., 2005; Aro et al., 2019; Francis, Caruana, Hudson, & McArthur, 2018; Turunen, Kiuru, Poskiparta, Niemi, & Nurmi, 2019), social withdrawal (Almurtaii, 2016; Carilineoll et al., 2005; Chazan, Laing, & Davies, 2014; Williams, 2018), and school dropout (Blachman et al., 2014; Inns, Lake, Pellegrini, & Slavin, 2019; Vaughn et al., 2015). The research of Shaywitz and Shaywitz (2003) determined reading deficits in reading present future challenges that extend into adulthood. For example, Quin (2017); Shaywitz and Shaywitz (2003); Wang and Fredricks (2014) and discovered the presence of adverse economic and medical results

that exist not only for the individuals, but also for the society as whole. The results of this research implied the great need for early intervention for reading instruction.

Gutman (2012) studied information on 2.6 million 1st -12th grade general education students in all 50 states and a total of 24,465 schools in all. As a result, Gutman (2012) revealed that the average reading range for participants was the equivalent of a 5.4 grade level. The complexity of the text students are required to read when they enter high school is greater than in previous grades. Reading requirements increase as students matriculate through the years and their level of critical thinking is expected to increase as well (Bulgren et al. 2013; Ciullo et al., 2016; O'Connor-Beach, Sanchez, Bocian, Roberts, & Cain 2017). There is an emphasis in differentiated instruction that teachers should adjust students' learning experiences regardless of the task or group.

Due to the fact that standards for academic achievement are on the rise, students on all levels are required to achieve high scores on standardized tests. Bulgren, Graner, and Deshler (2013), suggested that even greater pressure is experienced by those learners with learning disabilities (LD). Bashir and Hook (2009) and Stevens, Walker, and Vaughn (2017) postulated that reading fluency is imperative to the overall and future academic success of students because they believed that when learners develop reading fluency; this has a positive influence on their comprehension as well as their reading ability. According to Rasinski, Rikli, and Johnston (2009), reader comprehension is boosted once students achieve fluency because it encourages word recognition and decoding, consequently improving their intellectual capacity. Failure to achieve grade

level reading comprehension and fluency will ultimately negatively influence student performance.

Those students who do not perform on grade level in reading may require more support and will not be as likely to achieve an understanding of the general curriculum. This causes some students to fall behind compared to others in their class when it comes to the curriculum, knowledge, and achievement. Cooke, Kretlow, and Helf (2010) suggested that poor self-esteem coupled with a low literacy level can cause underachievement in other subject areas. According to Allington (2011) and Schmoker (2018) students who do not have the ability to read not only on grade level, and fluently, will become at risk readers due to the fact that they lack the ability to comprehend the information. The problems that students who struggle to read, experience limitations in other subject areas. Readers who are offered differentiated instruction to assist with learning to read, are afforded the opportunity to gain the necessary reading competencies required to expand their reading proficiency.

A student has achieved the goal of reading when he or she develops the capability to comprehend and analyze concepts. This means that they have developed the ability to learn and retain the information they have read. Therefore, it is imperative that educators realize that a critical component of this capability is fluency (Nichols, Rupley, & Rasinski, 2009; Nichols, Rasinski, Rupley, Kellogg, & Paige, 2018; Schwanenflugel, Westmoreland, & Benjamin, 2015). When the focus of classroom instruction is to increase fluency, it helps to create and develop comprehension in reading (Shwanenflugel

et al., 2009). Furthermore, students attain a level of control in decoding and fluency by way of these comprehension capabilities (Connors, 2009).

Differentiated Instruction

Differentiated Instruction may vary in definition depending upon where you look but the aim is basically unchanged. Bondie and Zusho (2018), Cross, Frazier, Kim, and Cross (2018) Logan (2011), and suggested that Tomlinson's theory of Differentiated Instruction focuses on educators concentrating on attending to student differences, what is vital in the learning, uniting teaching and assessment, as well as collaboration regarding learning expectations. Furthermore, Levy (2008), Subban and Round (2015), and Zhao (2018) explained that although the process for each student is unique, Differentiated Instruction offers tools which help all learners reach the same academic goals. Educators are tasked with teaching in classrooms that have diverse students who run the gamete in regards their ability being above, on, and below grade level. Lauria (2010; 2017) concluded educators have the ability to help students who are struggling to become successful students by way of Differentiated Instruction. Moreover, Anderson and Algozzine (2007); Deunk et al. (2018); and Suprayogi, Valcke, and Godwin (2017) proposed that differentiated learning environments are a necessity if educators wish not to exclude any learner.

Birnie (2015), Dugas (2017), and Morgan (2014) discussed teachers providing struggling readers with differentiated instruction. The approach supported the reader's preferred learning style (Landrum & McDuffie, 2010; O'Mahony, Sbayeh, Horgan, O'Flynn, & O'Tuathaigh, 2016; Valiandes, 2015) as well as their true potential (De

Gagne, 2011; Dong, Hwant, Shadiey, & Chen, 2017; Rana, Dwivedi, & Al-Khowaiter, 2016; Snyder & Linnenbrink-Garcia, 2013). Furthermore, Morgan (2014) postulated that differentiated instruction has the ability to support the academic progress of struggling readers by offering instruction which is guided by their learning style. Ernest, Heckaman, Thompson, Hull, and Carter (2011), Othman, Shahrill, Mundia, Tan, and Huda (2016) shared the results of educators utilizing differentiated instruction in an inclusive classroom. It was found that differentiated instruction assisted readers in terms of improving reading scores from failing to average on reading tests (Ernest et al., 2011).

Many definitions of Differentiated Instruction embrace the meaning of taking into account the differences each learner brings with him/her as well as the significance of reaching him/her all. According to Boelens, DeWever, & Voet (2017) and Wilson (2009), Differentiated Instruction can be defined as the development of tasks from simple to complex. Differentiated Instruction is reported to seek to ensure the weaknesses of each individual learner are met while the lessons are taught to the entire class (Butt & Kausar, 2010; Jones, 2018; Nedellec, 2015). Furthermore, Pham (2012) postulated that Differentiated Instruction is teaching where educators design their instruction to guarantee they take full advantage of the academic achievement of their students based on recognizing the needs of learners. Differentiated Instruction allows the teacher to offer remediation to students who are not prepared based on their learning target (Brezicha, Bergmark, & Mitra, 2015; Carver, 2016; De Neve, Devos, & Tuytens, 2015; Pham, 2012,).

Reis, Little, Muller, and Kaniskan (2011), Shaunessy-Dedrick, Evans, Ferron, and Lindo (2015), and Suprayogi, Valcke, and Godwin (2017) examined the effectiveness of differentiated reading programs and described how the teachers provided students with opportunities for differentiated learning such as buddy reading, individualized conferencing, individual reading time, and extended enrichment activities such as creativity training. Moreover, those learners who received differentiated instruction by way of small group instruction improved their reading grades (Reis et al., 2011). In addition to improved performance, previous studies examined other benefits of exploring the effectiveness of differentiated instruction as it relates to teacher views. Date and Nowicki (2018); Kanevsky (2011); Patrick, Gentry, Moss and McIntosh (2015); and Shaunessy-Dedrick, Evans, Ferron, and Lindo (2015), shared an analysis of differentiated instruction which reported that nearly 20% of the students whom participated supported the integration of choice of topics as well as self-pacing. These conclusions illustrate how students consider differentiated instruction strategies promoted cooperative learning along with their strengths (Kanevsky, 2011).

Dack (2018), Sherman (2009), Tomlinson (2009), and West and West (2016) spoke about focusing on the concept of teaching in a manner which offers variety to students and will assist in ways of helping them achieve academically because differentiated instruction reflects the understanding that all students are different. Hawkins (2009), Smith (2015), and West and West (2016) postulated that when educators utilize differentiated instruction, they are taking the opportunity to respond to the diversity of their students and their abilities to think critically. Similarly, previous

studies have outlined the method in which students complete the same assignments in differing manners that relate to their identified profiles of learning, knowledge, and interests (De Neve & Devos 2016; Goddard, 2010; Goddard; Goddard, & Kim, 2015; Saban, 2011; Supovitz, Sirinides, May, 2010; Tomlinson, 2012). Hillier (2011), O'Donoghue (2007), Shoemaker-Holdren (2012), and Van Duinen and Mawdsley-Sherwood (2019) took an alternative approach to the typical math, writing, and reading lessons by differentiating the content and intertwining them into their performing arts and music lessons.

Moreover, Rasmussen (2012) explored differentiated instruction in relation to English as a Second Language (ESL) classrooms, while others like Ertmer and Ottenbreit-Lefwich (2010); Hutchison, Beschorner, and Schmidt-Crawford (2012); Ottenbreit-Lefwich, Liao, Sadik and Ertmer (2018); and Sung, Chang and Liu (2016), gave attention to implementing technology such as tablet computing in computer literacy courses. Tomlinson (2013) put forth that differentiation has a basis in measurement and progress monitoring; which is evident by its emphasis on the use of assessments to examine student abilities, learning profiles, and the application of multi-modal instruction.

According to Walker Beeson et al. (2014) and Lefebvre, Samson, Gareau, and Brouillette (2016), the lack of teaching practices which utilize technology can be attributed to the level of technology proficiency the teachers possess. With the proliferation of technology, teachers and classrooms can be equipped to maximize benefits to students by combining instruction. Tenkely (2013) postulated that

differentiated instruction can be facilitated in every lesson by way of technology to accommodate the level of learning for each student.

Teacher' Views toward Differentiated Instruction

Depending from whom the question is asked, differentiated instruction might garner different meanings from different teachers. Per Tomlinson (1995), teachers have viewed differentiated instruction through various lenses for some time. Most educators do not give much thought to differentiated instruction since they look at it as a novelty or due to classroom size, they have apprehensions about developing learning environments that contain more than one learning activity occurring simultaneously (Tomlinson, 2003). Moreover, Tomlinson (2013) also spoke about how teachers were worried about their ability to evaluate the readiness of their students to engage in certain educational tasks. Furthermore, there is indecision among teachers when it comes to implementing differentiated instruction techniques when the pressure to perform well on standardized tests already looms (Logan, 2011).

Teachers appear to have differing opinions about differentiated instruction; indicating support and criticism of the approach (Santngelo & Tomlinson, 2012). These differences are reported to come into play when applying the practices teachers are believed to comprehend. On the positive side of the views, teachers value the premise that differentiated instruction is intended to improve student performance. The National Reading Technical Assistance Center (NRTAC, 2010) reported the appreciation for the impact differentiated instruction has made on the monitoring of student progress and

supporting the at-risk student population. Educators also reported being able to easily apply data to previous measures used to identify baseline levels and progress.

There are many teachers who utilize a student-centered instruction approach which encompasses learning styles and multiple intelligences to accomplish improved student achievement collaboration, individuality, and accountability (Alavinia & Farhady, 2012; Day, Gu, Sammons, 2016; Dou, Devos, & Valcke, 2017; Harris & Brown, 2009; Madox, 2015; Printy, Marks, & Bowers, 2009; Saeed, Tahir, & Latif, 2018). Von Hover, Hicks, and Washington (2011) revealed that teachers did not perceive themselves as experts when it came to differentiated instruction, but the case study illustrated how via observation of the teachers' delivery methods revealed that their teaching techniques were consistent with existing literature on differentiated instruction.

According to Logan (2011), there is a range of mistaken beliefs that teachers hold which can get in the way their motivation to apply differentiation to their learning environments. Furthermore, Logan (2011) illustrated how some of the participants had negative feelings toward differentiated instruction because they felt it was another way outside influences were trying to control their teaching practices. Moreover, Logan (2011) sensed that there were teachers whom thought differentiated instruction required them to teach all of the content in multiple ways.

The research conducted by LeFebvre, Samson, Gareau, and Brouillette (2016) and Walker, Beeson, Journell, and Ayers (2014) paralleled the teaching techniques used in government courses at two high schools. The teachers who participated felt that benefit was added to the course using laptop that had been implemented at their schools.

There were several students who had their own devices that they could use. Each of the teachers made integrating technology into their curriculum a normal practice. When the teachers did this, it allowed them to exhibit different levels of complexity during instruction.

Throughout the years, teachers have been tasked with providing instruction to a highly diverse population of learners. This finding coupled with the ever-changing educational standards and standardized testing, illustrate that educators are finding it increasingly difficult to ignore student differences and address their differing needs (Bhattacharya, 2017; Ernest, Thompson, Heckman, Hull, & Yates, 2011; Othman, Shabrill, Mundia, Tan, & Huda, 2016). Ernest et al. (2011) examined the many environmental, familial, and societal circumstances students experience which influence their performance in education. Those circumstances include the presence or absence of an adult support system, race, culture, experience, personal interest, learning preference, language, disability gender, race, economics, and motivation to achieve, are just a few factors which affect students in the educational setting (Ernest et al., 2011). With all these variables in place, there is no wonder why teachers have reported difficulties in promoting student success. Regarding student success, Tomlinson (1995) indicated success and immediate success was a significant aspect in encouraging teacher usage of differentiated instruction practices. That is, teachers were more likely to implement Differentiated Instruction if they were able to produce positive student outcomes quickly.

The perspectives of teachers on differentiated instruction practices were examined and it was discovered teachers had difficulty adapting the resources provided by their

administrators and often sought their own resources for student instruction (Bailey & Williams-Black, 2008; Danou, 2017). These resources included websites, workstations, and reading mini lessons. Through this process, teachers appeared to apply practices that targeted students' comprehension, retention, self-reliance, and critical thinking skills (Bailey & Williams-Black, 2008).

As stated earlier, students are influenced by a number of factors in their environment, such as teacher, peers, and parents, which can serve as stimulus to their attitudes toward reading (Becker, McElvany, & Korenbruck, 2010; Stutz et al., 2016). Becnel, Moller, and Matzen (2017); Hansen and Collins (2015); and Morey (2003) conducted a study which investigated opinions of Accelerated Reader more specifically focusing on teachers' and students' opinion of the efficacy of differentiated reading software and found that it helped readers enjoy and feel good about their accomplishments.

Smith and Westberg (2011) conducted a qualitative study which explored the opinions of administrators and teachers in regard to the impact of differentiated reading software on student attitudes, reading experiences, and habits. Smith and Westberg (2011) found administrators as well as teachers expressed mixed opinions toward differentiated reading software. Negative impacts were described as an inability to meet the needs of those who struggle to read and the lack of group instruction while subject variety, motivation, and monitoring practice were positive opinions (Dijkstra et al., 2017 & Smith & Westberg, 2011).

Flexibility is the key when differentiating instruction however, Dixon, Yssel, McConnell, and Hardin (2014) as well as Sharp, Jarvis and McMillan (2018) discovered although teachers realize the significance of differentiating instruction and often are able to identify students who would benefit from Differentiated Instruction, they often have difficulty translating those factors into practice. Dixon, Yssel, McConnell, and Hardin (2014) and Sharp, Jarvis and McMillan (2018) examined teacher efficacy as it relates to the professional development training on differentiated instruction. Using rating scales and questionnaires, teachers who were reported as having a great deal of professional development on differentiated instruction felt more efficacious in the delivery of Differentiated Instruction practices (Dixon et al., 2014; Sharp, Jarvis and McMillan, 2018). Additionally, these teachers also reported a greater degree of efficacy and positive student outcomes. It was proposed that when teachers feel a sense of efficacy in the delivery of Differentiated Instruction practices; they are more willing to implement those practices with fidelity and consistency.

Student buy-in is a key factor in the adaptation and use of interventions. For instance, Conlon, Zimmer-Gembeck, Creed, and Tucker (2006) postulated that achievement in terms of reading is impacted by a students' views toward reading. As it relates to social influence, Nelson and DeBacker (2008); Ruzek, Hafen, Allen, Gregory, Mikami, and Pianta (2016); as well as Vollet, Kinderman, and Skinner (2017) reported that peer climate as well as social environment have a major influence on academic motivation. Another example was reported by Chiu and Chow (2010); Chin and Chow (2015); Hu, Gong, Lai, and Leung (2018); and Nag, Vagh, Dulay, and Snowling (2019),

who concluded that achievement and motivation are affected by this type of social influence which most often is where students acquire their beliefs.

Educational leaders are challenged with discovering the preeminent technique to utilize resources to improve student achievement and deliver services that encourage improved school performance. Murnane and Steele (2007) postulated that an educator may be highly qualified but unable to deliver instruction in a manner which will help in improving student achievement. Levy (2008) considered differentiation as an instructional strategy which considers a variety of learning needs within the classroom. The use of individualized instruction allows teachers work within the needs and capabilities of the individual learner. Using a model such as differentiated instruction, educators have the ability to support student achievement academically.

According to Fitchett, Heafner, and VanFossen (2014); Handin and Leeman (2018); and Howell and Save (2016), the initiative for improved standardized test scores, provoked mainly by NCLB, has given rise to educators sensing the necessity in tapering the courses. One of the efforts in improving performance on these standardized tests as it relates to Adequate Yearly Progress (AYP) has prompted districts to emphasize lessons on the exact subject areas underlined on standardized tests, precisely math and language arts. According to Tomlinson (2013), educators struggle while instructing classrooms of diverse students in crowded classrooms. Districts are weary of the unfamiliar when they are held accountable for results, endeavoring to increase criterions, focusing on student achievement and augmenting educator professional development (Jones, 2018).

Hawkins (2009) and Tomlinson and Santangelo (2012) put forth that one encompassing methodology which is thought of as valuable in speaking to these issues is differentiated instruction. Coubergs, Struyven, Vanthournout, and Engels (2017); Reis, McCoach, Little, Muller, and Burcu (2011), and Suprayogi, Valcke, and Godwin (2017) conducted research which validated that differentiated instruction stemmed an increase in academic performance. This quantitative study established that when teachers differentiate instruction there are substantial differences in comprehension and fluency in reading. As pointed out by many of these studies, positive outcomes have been elicited in the classroom as shown by improved engagement, and academic performance due to the utilization of differentiated instruction.

According to Keengwe, Pearson, and Smart (2009); Kiviluoto (2015), Pinto, Sales, Fernandez-Pascual, and Caballero-Mariscal (2018); and Wong, Tan, Loke, and Ooi (2015), it is common for teachers from kindergarten classes to instructors in graduate studies to exhibit a tendency to utilize the learning approaches which are preferred by the instructor as opposed to learning approaches which their students prefer. Improving academic performance for students in the classroom can be achieved when teachers adapt their instruction (Good & Lavigne, 2017; Hornstra, Mansfield, van der Veen, Peetsma, & Volman, 2015; Nurmi, Viliaranta, Tolvanen, & Aunola, 2012; Silinskas et al., 2016). Utilizing differentiated reading software is one way of adapting their instruction.

Academics consider differentiated instruction as a key component for struggling students (Patterson, Connolly, & Ritter, 2009). Throughout a single room, educators are presented with socially and educationally diverse students. By way of differentiation,

educators can address difficulties using those diverse experiences. Differentiated instruction permits educators the ability to identify current levels and track progress towards their educational goals (Fox & Hoffman, 2011). Comprehensive, differentiated instruction can be viewed as a more practical approach to remediation, the more it is used (Levy, 2008; Manning, Stanford, & Reeves, 2010; Subban & Round, 2015; Zhao, 2018). Using technology to deliver differentiated instruction helps to reduce these factors.

There is no additional work for educators when it comes to reorganizing their techniques to deliver differentiated instruction (Tomlinson, 2000). On the other hand, Wells and Shaughnessy (2010) postulated that part of being an effective educator is making adjustments to your teaching techniques. Utilizing differentiated reading software such as Achieve3000 makes delivering any extra work students may need less time consuming.

Using Technology to Differentiate Instruction

Christenson, Horn, and Johnson (2008) postulated that providing effective differentiated instruction can be aided using instructional technology. Using differentiated reading software like Achieve3000 makes this possible. Technology can be implemented in many innovative ways which will allow for teachers to customize their learning models as well as instructional programs (Davidson & Goldber, 2009; Hargreaves & Shirley, 2008; Zhao, 2009). According to Tomlinson, Brimijoin, and Narvaez (2008), teachers are more inclined to become involved in the learning climate where the principal is more involved in leading differentiated instruction.

Farisi (2016) affirmed that developments in the technology industry have made a great impact on education and are in many ways responsible for changing teaching techniques in the 21st century. In many ways, the availability and emergency of educational technology has spawned this transition to a student-focused mindset as opposed to teacher-focused models. Chen and Herron (2014), Cheng, Chiu, Wu and Tsaih (2017), and Sun, Yao, You, Du, and Luo (2018) suggested that teachers need to become knowledgeable of appropriate technology integration strategies if they wish to provide effective teaching.

Technology gives teachers the ability to encourage learning by introducing their students to tasks which they view as interesting. Implementing computer technology in the classroom helps to intensify the level of interest students have in their lessons. Assisting students with their coursework is the goal of incorporating technology into the classroom. There are many school districts which have begun helping their students improve their academic competencies by implementing technology. According to Tenkely (2013), technology shows promise in helping educators improve student achievement.

These programs could provide assessments for students to embark on learning at the level which is most appropriate for them. Furthermore, these computerized programs have the ability to offer academic plans to assist students in achieving academic success. Meyer et al. (2011) affirmed that implementing computer-based programs promoted behavioral, environmental, and personal interactions by allowing self-regulation and learning at a pace they were comfortable with.

Through the integration of technology, teachers have the ability to redefine their teaching strategies. Bester and Brand (2013), Henry (2018), Li and Yang (2016), and affirmed that even when technology is successfully integrated to enhance the learning experience, it cannot replace the role of the classroom teacher. Furthermore, Athans and Devine (2013) acknowledged that implementing the use of electronic presentations, Smart Boards, computers, and other educational technology tools tend to motivate students. Moreover, Athans and Devine (2013) suggested it is beneficial for educators to designate the needed resources to support the utilization of technology in school districts which can help to ensure teachers are given adequate training on applying educational technologies in their classrooms. Spector, Johnson, and Young (2014) postulated that technologies can include systematic knowledge or physical devices which are involved in the design and achieves its practical purpose in the application of knowledge. This explanation puts forward the idea that technology should not be the focus of instruction but should be used as a facility for educating. When utilized effectively, educational technology can be utilized to help increase student performance levels.

Through the review of the literature, gaps were apparent in the examination of views and opinions of differentiated instruction through the lenses of third-grade reading teachers. The aforementioned studies indicated the importance of these views and opinions on performance, intervention use, and stakeholder buy-in. Gaps were apparent in the examination of the views and opinions of differentiated instruction through the lens of third-grade reading teachers. Furthermore, the studies failed to incorporate multiple measures to examine the views and opinions of elementary level educators. Some of the

previous research emphasizes the importance of obtaining views and opinions as a means of academic performance, none of them explored the views and opinions of the relationship between educational interventions and the standardized measures these interventions seek to influence. This study sought to investigate the views and opinions of third-grade reading teachers as it relates to Achieve3000 and its role in preparation of the Florida Standards Assessment's English Language Arts.

Summary

When examining the effectiveness of interventions, the voice of the teacher is missing. As stated earlier, stakeholder buy-in is important when discussing the efficacy of an intervention. Often, teachers are not provided with the opportunities to provide their point of views for the programs they are required to engage in. A scarcity of literature existed on teacher views of differentiated instruction software to prepare for the Florida Standards Assessment Test. In addition, the literature on teacher views of differentiated instruction software that were available did not present empirical validation. The necessity for supplemental research was apparent due to the identified gaps in literature.

Data received from the interviews and focus group of teachers should be considered like other forms of data. We must seek to value this data and utilize the sources to improve educational practices and drive instruction. Now more than ever before, there should be a universal approach to connect teachers' feedback and perspectives to evidence-based educational practices to improve student performance and increase literacy achievement. Furthermore, the gap in research reflects a shift in ideals

and appears to have removed the student-centered approach of the past. This study can be considered a steppingstone towards that ideal and generate dialogue of best practices in education.

Chapter 3 consists of information concerning research methods, design, rationale, and the role of the researcher. Chapter 4 will entail summaries of the demographics, data collection, data analysis, evidence of trustworthiness, and study results. Finally, Chapter 5 will consist of the discussion, interpretation, conclusions, and recommendations.

Chapter 3: Research Method

Introduction

The purpose of this basic qualitative study was to investigate the views and opinions of third-grade reading teachers on the use of differentiated instruction software, such as Achieve3000, to improve reading proficiency and prepare students for the Florida Standards Assessment. It was intended to achieve the objectives of the study by conducting individual interviews with open-ended questioning and a focus group interview. This chapter will include an overview of the qualitative approach utilized, the present study's purpose, the manner of which the study will be conducted, a description of the participants, as well as details about the data collection procedures, and analysis procedures.

Research Design and Rationale

This qualitative research study utilized a basic qualitative approach due to the nature of the research questions. Qualitative methods emphasize the way something impacts the lives of individuals as well as the part it plays in their life as opposed to a quantitative study which typically involve statistical data and many individuals. The qualitative research method was best suited for this research since it had the potential to offer in-depth information while utilizing a small number of participants. Determining the most fitting research design required careful consideration and required a lot of time.

The use of quantitative methods was more suited for research which sought to determine relationships based on numerical and statistical data. Quantitative research can employ many participants and use structured questionnaires which may contain

predominantly forced-choice and closed-ended questions (Nachmias & Nachmias, 2008). Quantitative methods were not best suited for this study because they, emphasize mathematical, statistical measurements, utilizing surveys, polls, which can be costly, time consuming, and possess a limited ability to probe for answers (Flick, 2014). Moreover, participants for quantitative studies may not represent members of the population the research intends to focus on (Nachmias & Nachmias, 2008).

Mixed methods research requires the researcher to become familiar with both qualitative and quantitative methods and develop the ability to decipher when and how to combine them effectively (Creswell & Plano Clark, 2011). Furthermore, mixed methods research tends to be costly and time consuming compared to the other research methods especially when the researcher must apply two or more approaches concurrently (Miles & Saldana, 2014).

According to Miles and Saldana (2014) when analyzing quantitative data qualitatively, interpreting conflicting results can be difficult therefore, mixed methods research is not best suited for this research study. For instance, participants may rate a tool highly on a numerical scale but have negative thoughts about the same tool when probed further in an interview or focus group. This strategy was not chosen because there is no need to collect quantitative data according to the focus in this study.

There are several approaches used in qualitative research. Out of these, the basic qualitative approach was selected to conduct this study. Among the rest, the case study approach, which can be applicable to many disciplines, was not chosen for this research. Yin (2013) revealed the case study design offers the opportunity for the participant to

divulge sensitive information to the researcher. Furthermore, in the case study approach, the researcher's focus is to examine and report the lived experiences of the participants (Creswell & Plano Clark, 2011). Also, biases in the case study approach arise when the sample size and research team are limited in number (Yin, 2013). Unlike the case study approach, interpretive studies are not restricted to particular phenomenon (Yin, 2013).

That is to say, research that consists of undiversified and unilateral focus and population, poses difficulty in meeting reliability and validity of its findings. Moreover, the theory of cause and effect is often challenging to determine with regards to case study approach (Yin, 2013). However, in interpretive research and because it is also a philosophical perspective, assumptions can be drawn about how people react to various situations based on the information obtained (Creswell & Poth, 2017; Nachmias & Nachmias, 2008).

The result for the grounded theory approach differs from that of a basic qualitative approach. Researchers seek to pinpoint a theory which is grounded in the collected data (Glasser, 2017). Basic qualitative studies do not try to define theory, as in grounded theory research. Moreover, both grounded theory and the basic qualitative approach are considered qualitative research approaches (Dawidowicz, email communication, December 8, 2017). Grounded theory can use a variety of methods for data collection while basic qualitative studies typically employ interviews (Maxwell, 2015).

The grounded theory approach did not present as suitable for this study due to the predisposition of establishing theory (Corbin, Strauss, & Strauss, 2014). Theories

represent thoughts or parts linked to a whole. Although the grounded theory approach involves separating data into themes, just as in basic qualitative studies, the present study does not seek to construct a theory.

Narrative research possesses a few disadvantages, which make it not best suited for this study. A shortcoming of the narrative approach is that it is difficult to qualitatively access in an objective manner because it is personally meaningful and subjective (Marshall & Rossman, 2014; Nachmias & Nachmias, 2008). In contrast to the narrative approach, basic qualitative research does not convey the life stories through narrative analysis, delve into history, or focus on analyzing content. These reasons make the narrative approach not best suited to answer the research questions. Ethnography research was not a good choice for this study because it would not help to understand the experiences as it focuses on the way of life which is culturally oriented. Since data must be validated, analyzing it can become a lengthy process due to the time needed to write and analyze the data (Miles & Saldana, 2014). Furthermore, the results can be invalid or unreliable in situations where the data collected is insufficient. Moreover, basic qualitative research does not seek attempt to explain sociocultural aspects as sought out in ethnography research.

The basic qualitative approach was best suited to understand third-grade reading teacher opinions of using differentiated reading software to prepare for the Florida Standards Assessment. This study sought to obtain individual face-to-face teacher interviews and a focus group to determine the views and opinions of third-grade reading teachers on the use of differentiated instruction software, such as Achieve3000, to

improve reading proficiency and prepare students for the Florida Standards Assessment. Creswell (2013), Ormston, Spencer, Barnard, and Snape (2014); Vagle (2016); and Van Manen (2016) revealed that a basic qualitative approach focuses on opinions and shared meaning. Furthermore, the basic qualitative approach was suitable because the goal of the research was to evaluate as well as describe the experiences of a group to appreciate the core of their involvement, through their attitudes and beliefs (Creswell, 2013; Giorgi, 2009; Todres & Holloway, 2006). The purpose was to define and investigate personal views and opinions of stakeholders to gain first-hand knowledge of how it is experienced.

Research Questions

1. What are the third grade reading teachers' views of Achieve3000 as a tool in preparing students for the Florida Standards Assessment in English Language Arts?
2. How do third grade reading teachers perceive the use of Achieve3000 as a tool to improve students' overall reading ability?

Researcher's Role

One of my many roles in this study was to obtain and examine data that was qualitative in nature. This study utilized both individual face-to-face interviews and focus group interview. During the study, the researcher only functioned as an interviewer; as I was not be directly involved in the implementation of the program of Achieve3000 in the classroom. There were no preexisting professional or personal connections between me and the participants of the present study. Additionally, there were no preexisting relationships between the researcher and the intended district.

Moreover, there was no familiarity with the intended school settings. Protecting all research participants, I ensured that research controls were in place, any biases which may have develop were managed, and followed the study's protocol in the most ethical manner possible conducting the individual face-to-face interviews and focus group interview. Conducting the individual face-to-face interviews and focus group interview were the most important roles that I played in the data collection process.

Methodology

I intended to gather and examine the views and opinions of third-grade reading teachers on the use of differentiated instruction software, such as Achieve3000, to improve reading proficiency and prepare students for the Florida Standards Assessment. These opinions were investigated via a focus group interview with the six third-grade teachers and individual face-to-face interviews with the same group.

Participant Selection

Participants for the present study were six third-grade teachers selected from a school district within a Northeastern city in Florida. These participants consisted of a homogenous group of teachers providing reading curriculum and differentiated instruction through the computer-based remedial program, Achieve3000. Patton (2009) and Reybold, Lammert, and Stribling (2013) affirmed that qualitative research focuses on small sample populations as opposed to quantitative research which usually focuses on larger sample populations. Since qualitative research typically focuses on small sample populations in order to collect in depth information from the participants, this makes it suitable for this study. Since third-grade reading teachers are tasked with using the

interventions, they are deemed better suited to provide insight into understanding how Achieve3000 impacts reading instruction. Moreover, third-grade reading teachers can offer pertinent information to best inform the research questions. Third-grade was considered the best choice regarding measuring an intervention that seeks to prepare students for standardized reading assessments.

Smaller sample sizes are sufficient to obtain rich, insightful data when using purposeful sampling to obtain knowledgeable participants (Palinkas et al., 2013; Yilmaz, 2013). Guest, Bruce, and Johnson (2006) presume that a sample size of six can be a sufficient number to satisfy interview-based research. Additionally, Kruger and Kasey (2010) explained that when it comes to focus groups, an effective group size can range between five and twelve. Small groups are suggested for topics where participants have increased experience or expertise with the topic (Krueger & Casey, 2010). Planning for a focus group with more than 6 participants did not appear to be a good idea because challenges arise in maintaining data quality when utilizing a large group (Ryan, Fandha, Culbertson, & Carlson, 2014). Furthermore, may have constrained opportunities for participants to elaborate in regard to insight into their experiences (Ryan et al., 2014).

Purposeful sampling can be viewed as a characteristic in qualitative research. Purposeful sampling is beneficial in qualitative research as, it allows the researcher the ability to identify and select cases, rich in information when limited resources are available. As opposed to focusing on the quantity of people, purposeful sampling entails the researcher assessing a small group of people that will disclose useful data. To execute this, the researcher must identify and select groups and individuals who are

familiar with a construct, paradigm, or, in this case, method of instruction (Creswell & Plano Clark 2011; Seidman 2013). According to Patton (2009) and Gentles, Charles, Ploeg, and McKibbin (2015), purposeful sampling involves utilizing cases where the research illuminates the research questions. Purposeful selection of teacher participants had the potential to yield the information required to respond to the present study's research questions.

The population for this study included six third grade reading teachers from two Northeastern public schools in Florida. The teachers were selected based on their willingness to participate. Teachers were solicited through professional development correspondence and their participation was on a voluntary basis. All elementary schools in this district used Achieve3000 as a differentiation software and therefore, this was a variable that was already controlled for. Care was taken to select the six educators that represent various cultural demographics of the population. Varying the sample of teachers to represent diverse backgrounds embraces interesting and different attitudes on unsatisfactory saturation (O'reilly & Parker, 2013). Additionally, all participants of the study were provided pseudonyms to ensure anonymity and protection of responses. Furthermore, the schools in which the participants were selected from were also privatized with a pseudonym to protect its attendees.

Instruments

Instruments included in this study were teacher interview questions and teacher focus group interview questions. It was my responsibility to ensure that the instruments chosen were valid and reliable. Furthermore, whatever procedure was utilized to collect

data had to be critically examined to check the extent to which it is likely to return the expected results.

Teacher Interviews. According to Fontenot, (2013) and Patton (2002) and Marshall, Cardon, Poddar (2013) information can be amassed by way of interviews which cannot be realized by way of observation. The individual face-to-face interviews were conducted with interview questions that were crafted from McNamara's (2009) and Turner's (2010) guidelines for conducting qualitative interviews. The questions were intended to elicit enough data from which themes could be discovered to answer the research questions regarding Achieve3000. In the event teachers did not express satisfaction in the intervention for this purpose, follow-up questions sought to explore the reasons for their dissatisfaction.

Care was taken to eliminate potential problems with data collection procedures that may have threatened the reliability of this study (McNamara, 2009). Using the eight principles of conducting interview, the following procedures were used: (a) a private room within the school; (b) the purpose of the interview explained; (c) confidentiality terms verbalized; (d) the interview format explained; (e) the length of the interview shared; (f) contact information given; (g) opportunity for questions given; and (h) notes written to recall answers (McNamara, 2009). My role during this event was conducting the individual interviews with the participants in a private room in the school.

Teacher focus group. The focus group interview was another method employed to collect data from the teacher participants. Once the individual face-to-face interviews were completed, the researcher conducted a focus group interview. The focus group

interview questions complemented the interview questions by allowing the teachers to offer their views and opinions of the program. The focus group interview questions were intended to elicit additional and supportive data not discovered from the individual face-to-face interviews (see Appendix B). Specifically, the teacher focus group discussions were used to gather collective information about the views and opinions of third-grade reading teachers on the use of differentiated instruction software, such as Achieve3000, to improve reading proficiency and prepare students for the Florida Standards Assessment. These questions also sought to explore the presence of a consensus on the usefulness of this intervention. If a consensus could not be drawn, contrast was made available and explored through follow-up questions. The interviewer collected information from the participants through the use of a focus group, which were conducted in a secluded room within the school. My role during this event was leading the focus group interview.

The focus group interview used in this study was conducted among a homogenous group which is typical for this type of data collection method. All members of the sample population all had previous exposure to the computer-assisted instructional software in question. The focus group was made up of six third-grade reading teachers who resided in the same district. Comparisons were made to contrast the third-grade reading teachers' responses in individual and group format as they related to their views on utilizing Achieve3000 to prepare for the Florida Standards Assessment Test.

Data Collection Procedure

First, I gained approval to conduct my research from the Walden University Institutional Review Board (IRB). Once I had approval from Walden University IRB, I contacted the IRB for the School District in order to gain their approval to conduct my research. The research sites were chosen because differentiated software has been used there for reading for a number of years. In order to gain access to the sites, I emailed the principals of the three schools to explain my desired research and how I would like to conduct my research at their schools (see Appendix C). The principals and I exchanged contact information so that was be able to keep them abreast of where I was with my research. This helped to build a working relationship because the principals expressed interest in data driven instruction.

I worked with the school principals to schedule the best time to meet with the third-grade reading teachers. After meeting with the principals, I contacted the third-grade reading teachers via email to get their consent to participate in the study as well as schedule dates to conduct individual interviews within a private area in the school where students will not be present. The date and time for the focus group discussion was coordinated with the participants to take place during a time when students are not present.

The individual interviews were conducted with the participants in a private room within the school. The individual interviews took place prior to the focus group interview. Conducting the individual interviews before the focus group interview gave the participants opportunities to provide their responses without the possibility of another

participant's responses influencing theirs. After the interviews had concluded, I sent emails to each of the participants letting them know how appreciative I am that they took the time out of their busy schedules to share their thoughts. In terms of debriefing, rechecking was accomplished by providing the participants with copies of what they said and obtain their approval. Furthermore, participants were provided with what the results of the research findings indicated. If they expressed interest, participants were offered references and websites that they could access to conduct further reading on the topic. Furthermore, I provided my email address and phone number as contact information in case any of the participants have follow up questions once we have concluded the present study.

Data Analysis

Computer assisted qualitative data analysis software (CAQDAS) is employed in an array of disciplines and research which utilize qualitative approaches. With CAQDAS, researchers could find and count frequencies with little to no time. I became familiar with utilizing CAQDAS in my advance research courses. Using CAQDAS helped with speed and diligence. Using qualitative data analysis software is not as easy as it may seem, especially for those who do not consider themselves savvy with technology. Qualitative data analysis software offers features that assist with qualitative research procedures like coding and content examination. Janesick (2011) and Frieese (2014) affirmed that an existing package is improved, or new software packages become available every year. Software developed for qualitative research can decrease the

amount of time needed for the analysis process. Utilizing this specialized software also aids in testing out different codes.

Data was analyzed using a CAQDAS and began once the first set of data was collected. I took notes on things that I noticed so that I could ask probing questions during the focus group. Common patterns and themes among the focus group interview and interview responses were investigated through examination of the data. As the themes surfaced from the focus group and interviews, I developed charts to assist me in understanding and analyzing the data. Atlas.ti was utilized in the processes of annotating, coding, comparing, categorizing, and content analysis.

Auto-Coding was utilized in the coding process. Auto-coding in Atlas.ti acts like a text search and can assist in finding instances of words. Furthermore, Atlas.ti allows the researcher to set specifications relating to how much to code as well as ways to code those occurrences. Auto-Coding assisted in quickly coding strings of words related to concepts in the individual face-to-face interviews and focus group interviews. Instead of entirely automating this process, I utilized semi-automated functionality to run the search function and review the results before making a decision to code or not to code.

The networks in Atlas.ti were used to develop the code types for this study. These networks represented graphical views of the individual face-to-face interviews and focus group interviews. Whatever was being displayed in ATLAS.ti was displayed in these networks. The networks functionality was used to assist in sorting or merging codes or groups of codes. The network tool was not just a drawing facility. Codes were dragged into the networks to be reviewed visually. Networks was an alternative to

working with lists of codes and can be viewed as a good choice because it made identifying codes easier.

The methods which relate to computer assisted qualitative data analysis are equivalent to those employed conventionally to evaluate data. Importance lies in choosing the best analytical techniques for understanding the data at a deeper level. Qualitative data analysis could be executed at a deeper level than was possible traditionally by way of employing a CAQDAS program.

Regardless of the use of the computer, one of the purposes of the data analysis process focuses analyzing the data and information gathered from the interviews and focus group. Careful examination of the information provided is imperative; whether on paper or via the software results window on the computer. Creswell (2007) and Lewis (2015) postulated that researchers relate their interpretations to the research developed by others in the past. Using data analysis software required the researcher to be familiarized with the information obtained to ensure accurate interpretation and contextualization of the data results.

The initial phase in analyzing data included review of the audio from the interview sessions and beginning to transcribe them. As they were being transcribed, care was taken to make note of key or interesting responses. The process of note taking and listening allowed me to develop tentative categories and ideas about relationships (Maxwell, 2013). I utilized a journal to keep data relating to my reflections of the research process. Furthermore, journal writing afforded me the opportunity to offer feedback. The process of taking notes in this manner can be viewed as journaling.

Corbin, Strauss, and Strauss (2014) and Janesick (2011) postulated that understanding the role of the researcher can be aided by employing journal writing. Moreover, journal writing can assist researchers in gaining a deeper understanding of participant responses.

Creswell (2013) and Saldana (2015) postulated that coding, interpreting, and organizing collected data are the basic steps to qualitative research. Next, I read the interview transcripts and documents to be analyzed. Creswell (2013) and St. Pierre and Jackson (2014) affirmed that personal experiences or existing literature can be compared to generalizations, patterns, or themes about the topic. I collected information from the third-grade reading teachers to organize them into patterns and themes.

The coding process was very valuable in analyzing qualitative data. Creswell (2013) and Merriam and Tisdell (2015) affirmed that axial coding, open coding, and selective coding are the three strategies to coding data. I began this qualitative study with open coding. Open coding allowed me to begin identifying initial categories while utilize large amounts of data. Maxwell (2013) postulated that open coding strategies involve taking what seems important from reading the data and developing codes. This was the initial stage of the coding process which afforded the opportunity to reduce information to a manageable size. In order to identify the most important categories, I looked at all of the document analyses, journal notes, and interview transcripts.

The process of coding has the potential to uncover triangulation of the data collected from document analysis and interviews. Once I identified the categories, the axial coding strategy was best suited for establishing themes among the categories by way of comparing all of them. Repetitive words in the notes were highlighted as I read

through the data. The data was reviewed a second time in order to identify those words which have the same meaning but spelled differently. These words which are not only similar but repetitive were used to develop themes. Miles, Huberman, and Saldana (2014) have indicated that this method of coding is for the most part appropriate for novice qualitative researchers as it is for virtually any qualitative study.

Selective coding and member checking were used in order to analyze the data. Corbin and Strauss (2008) and Glaser and Laudel (2013) identified selective coding as identifying the core categories within the data. Furthermore, member checking was utilized to make certain that I correctly interpreted any feedback from the participants. Computer and hand coding are the same process for qualitative data analysis. The researcher conducts the categorizing of data where hand coding takes place. According to Creswell (2013), computer programs can provide a method for accessing and storing the data and codes provided by the researcher. Qualitative research data analysis can be enhanced by the utilization of computer software.

ATLAS.ti is an attractive coding software which offers a range of options which can be of benefit to this research. Coding software lends a hand in data analysis process by codes from phrases and words. Bazeley (2007) and Silver and Lewins (2014) postulated that research can be done at home, work, or in the field when the data becomes portable. I was able to gain experience utilizing ATLAS.ti throughout my advanced research courses.

ATLAS.ti is an attractive option since it helps with the organization of audio, graphic, and text files. Furthermore, this program gives the researcher the ability to

annotate, code, and compare portions of information. Moreover, the capability to access the program via mobile devices using Android and iOS as well as export the information into other formats and programs such as CSV, HTML, SPSS, and XML. ATLAS.ti gives the researcher the ability to code via mobile devices or gives the option to transfer the data to another device like a laptop or desktop computer. These mobile capabilities afford the researcher the opportunity to create audio and video anytime or anywhere. Although, I did not use mobile devices, this functionality would have been useful if needed.

Table 1 includes the research questions for this study. In addition, the data collection source, timeframe, and analysis methods are identified for each corresponding research question. The data collection methods consisted of teacher interviews and focus group interviews.

Table 1

Summary of Data Collection Tools.

Research Question	Data Source	Data Collection Timeframe	Data Analysis
What are the third-grade reading teachers' views of Achieve3000 as a tool in preparation for the Florida Standards Assessment in English Language Arts?	Teacher interviews and focus group interview	Weeks 1 and 2 Weeks 3 and 4	Annotating, coding, comparing, categorizing, and content analysis using Atlas.ti
How do third-grade reading teachers view the use of Achieve3000 as a tool to improve their students' reading ability?	Teacher interviews and focus group interview	Weeks 1 and 2 Weeks 3 and 4	Annotating, coding, comparing, categorizing, and content analysis using Atlas.ti

Trustworthiness

According to Patton (2002) and Anney (2014), graduate students typically use doctoral committees to assess the quality of analysis. This form of assessment was used for my dissertation. To help reliability in qualitative research, the analysis of trustworthiness is essential. For my qualitative research plan, the specific procedures

were employed to increase the study's credibility, transferability, dependability, confirmability, quality, reliability, and trustworthiness are reflective of an emphasis on traditional scientific research criteria (Cope 2014; Patton, 2002). Patton (2002) postulated that utilizing triangulation strengthens research by way of combining theories and data sources.

Credibility

Credibility was assured by keeping in mind the three inquire elements of credibility of the researcher, philosopher belief, and rigorous methods (Marshall & Rossman, 2014; Patton, 2002). Moreover, in order to reduce bias, I included information which indicates the manner in which alternate explanations, patterns, and themes were discovered or utilized. A set of activities which may assist in improving the quality, credibility, and trustworthiness of research results can be labeled as prolonged engagement in the field, negative case analysis, member checking, triangulation, peer debriefing, and checking interpretations against raw data (Creswell, 2007; Flick, 2014; Patton, 2002).

Several strategies were utilized by the researcher to help ensure that the qualitative data are both valid as well as reliable. When it comes to reporting the findings of a research study, reliability and validity are critical (Maxwell, 2013). Validity relates to whether or not the outcome of a study is accurate or not. According to Kaufman, Guerra, and Platt (2006), and Silverman (2016), data that is reliable and valid can be viewed as information that is free of bias and opinion, up to date and timely, related to

the questions posed by the research, supported by citations, collected in an unbroken chain of events, and verifiable by independent sources.

According to Creswell (2009) and Elo, Kaariainen, Kanste, Polkki, Utriainen, and Kyngas (2014), history, gender, culture, background, and socioeconomic origin can play a part in influencing the interpretation of research findings. The use of detailed descriptions, triangulation of data, member checking, and researcher bias were the validity strategies for this qualitative study. Efforts were made to document my attitude and opinion regarding differentiated reading software. Furthermore, I made note of my own personal exposure to differentiated reading software. Moreover, every effort was made to acknowledge any possible bias by illustrating my attitude and opinion of differentiated reading software.

Transferability

Transferability was achieved by way of implementing the utilization of rich, thick descriptions. Furthermore, I was able to produce detailed data by transcribing the audio recordings of the individual face-to-face interviews and focus group. According to Maxwell (2013) and Cope (2014), the conclusions of a research study can be tested and grounded by way of detailed descriptions of the data.

Dependability

Credibility and dependability of the research data findings was established by way of the triangulation of data. Utilizing multiple data collection methods which are different by design helped in achieving triangulation by serving as a check and balance of the data collected. According to Fusch, and Ness (2015) and Maxwell (2013),

triangulation is the process of forming a single conclusion from the utilization of multiple data collection methods.

Another strategy that was utilized to strengthen credibility of the research findings is member checking. Anney (2014) and Creswell (2009) postulated that employing participants to assist in interpreting and reviewing the data collected is priceless. To help guarantee accuracy, I reviewed the interpretations and collected data with participants. Furthermore, I employed the strategy of member checking for the duration of the data collection process.

Confirmability

Golafshani (2003) and Frieze (2014) links objectivity in research to instrumentation, which do not depend on opinion or individual ability. Moreover, they conversely identified the toil of guaranteeing real objectivity due to researcher biases being likely since questionnaires and tests are developed by humans (Frieze, 2014; Patton, 2009). Confirmability relates to a researcher's interest in impartiality in qualitative studies (Hays, Wood, Dahl, & Kirk-Jenkins, 2016). Miles and Huberman (2014) postulated the need for the investigator to disclose their level of predisposition; this is considered a vital condition for confirmability.

Ethical Protection of Participants

Approval of the Walden University Institutional Review Board, the school district's Institutional Review Board, and signed consent forms from every participant ensured that participants understood he/she have the right to opt out of participation in the study and his/her participation in the study is truly voluntary. Since this study required

each participant to openly express his/her thoughts and feelings numerous measures were employed to guarantee their anonymity. In qualitative focus groups, and interviews, names were excluded from reference notes and responses. To assure anonymity of participants, the original documents are to be held private and secured manner where only the researcher and other facilitators have access to them. Furthermore, the schools were de-identified and provided with pseudonyms, as to further protect those involved in the research findings. To avoid misrepresentation, participants were offered additional opportunities to examine the data.

I obtained approval from the School District, School Principal as well as the Institutional Review Board (IRB) at Walden University for participation in this research study prior to communicating with any potential teacher participants. Requests for approval from the School Principals as well as the School District were sent via email. After these approvals were granted, I began contacting each potential teacher participant via email. Written consent forms were provided to be signed for those candidates whom agree or decline inclusion in the study. Participants were then instructed to return the consent from within five days.

The consent forms that were provided offered explanations of the purpose, confidentiality, and the use of results for this research (Appendix E). No incentives were offered to participants for their participation. For participant protection, pseudonyms were assigned to identify each of the participants. No one else was made aware of the identities of the participants other than the researcher. The data collected from this

research was saved to secured cloud storage as well as a flash drive which will be retained for a minimum of five years in a secured location.

Summary

Chapter 3 offered a thorough explanation of the present study's research design, which included the data collection instruments as well as the selection procedures. Furthermore, the chapter offered a review of the process to be used for the analysis of the data collected and the appropriateness of the project design. I reviewed the evidence of trustworthiness and probable ethical considerations as well as defined trustworthiness and credibility. Chapter 4 will present the analysis of the data collected and research findings. Chapter 5 will include commentary for practice and research as well as discussion of the results, conclusions, and recommendations.

Chapter 4: Results

Introduction

The purpose of this basic qualitative study was to investigate the views and opinions of third-grade reading teachers on the use of differentiated instruction software, such as Achieve3000, to improve reading proficiency and prepare students for the Florida Standards Assessment. It was intended to achieve the objectives of the study by conducting individual interviews and a focus group interview both with open-ended questioning. The results of the interviews were analyzed to determine what the third-grade reading teachers' views and opinions were.

Research Questions

The research questions used to guide this study were the following:

1. What are the third-grade reading teachers' views of Achieve3000 as a tool in preparing students for the Florida Standards Assessment in English Language Arts?
2. How do third-grade reading teachers perceive the use of Achieve3000 as a tool to improve students' overall reading ability?

This chapter includes an analysis of those results along with a description of the setting, demographics, data collection procedures, data analysis process, and evidence of trustworthiness of the study. Study results may inform instructional practice by offering ideas on how to effectively address all students' learning needs, especially when new measures like Achieve3000 are introduced.

Setting

Pseudonyms were created for anonymity of the schools and district. I conducted this qualitative study at three elementary schools Billings Elementary, Robinson Elementary, and Wallace Elementary in the state of Florida in the fall of 2018. At Billings Elementary, Robinson Elementary, and Wallace Elementary, third-grade reading teachers used the Achieve3000 program in addition to teacher-led classroom instruction. Achieve3000 was a part of the standard curriculum for the research sites for the past three years. My study included six third-grade reading teachers from one southeastern school district, Oceanside, Florida.

The sites were typical sized schools for the district, with an average of 400 students enrolled. Each school site was located in urban areas within a northeastern school district in Florida. The schools were all low-income schools, with 100% of their population reporting as being from low-income households and receiving free and reduced lunch.

Demographics

Participants for the present study were six third-grade reading teachers selected from a Southeastern school district in Florida. These participants consisted of a homogenous group of teachers providing reading curriculum and differentiated instruction through the computer-based remedial program, Achieve3000. From each school site, two participants agreed to be interviewed individually as well as participate in the focus group. The sites were located in urban areas within the Southeastern district. Purposeful sampling was utilized as the strategy to select participants for this study.

Thirteen potential participants were invited to participate in this study, and six participants agreed and took part in the study. Of the 13 contacted, seven chose not to participate or did not reply to my attempts. Additionally, six participants agreed to review the study in more detail, consented, and participated in the individual interview and focus group interview. Some participants requested more detailed information about the study and wanted verification that their names would not be disclosed when providing their opinions. Others expressed an interest to participate and were eager to share their views. Each of the participants sent consent emails stating, “I consent”. I then e-mailed each of the third-grade reading teachers and sent consent forms to those who agreed to participate. These six participants completed both the individual interview and a focus group interview. To ensure anonymity, each selected participant and school site were assigned a pseudonym, which are reported in Table 2.

Table 2

Participant identification, age, years teaching with Achieve3000, and school identification.

Participant Pseudonym	Participant's age group	Years teaching with Achieve3000	School Pseudonym
P1	20 - 30	4	Billings Elementary
P2	28 – 38	4	Billings Elementary
P3	27 – 37	1	Wallace Elementary
P4	33 – 43	4	Wallace Elementary
P5	29 – 39	4	Robinson Elementary
P6	32 – 42	3	Robinson Elementary

P1, the first teacher participant, had eight years of teaching experience. She began using Achieve3000 in 2014 and implemented the program with her third-grade students

at Billings Elementary. P2, the second participant, had six years of teaching experience. She began using Achieve3000 in 2014 and implemented the program with her third-grade students at Billings Elementary. P3, the third participant, had three years of teaching experience. She began using Achieve3000 in 2017 with her third-grade students at Wallace Elementary. P4, the fourth participant, had eleven years of teaching experience. She began using Achieve3000 in 2014 and implemented the program with her third-grade students at Robinson Elementary. P5, the fifth participant, had five years of teaching experience. She began using Achieve3000 in 2014 and implemented the program with her third-grade students at Wallace Elementary. P6, the sixth participant, had nine years of teaching experience. She began using Achieve3000 in 2015 with her third-grade students at Robinson Elementary.

Data Collection

Once approval from Walden University IRB was granted, I submitted the Request to Conduct Research Application to the school district's Department of Accountability and Assessment. As soon as approval from the school district was granted, I emailed each of the principals at the proposed research sites to explain my desired research and how I would like to conduct my research at their schools (see Appendix C). After corresponding with the principals, I contacted the third-grade reading teachers via email to get their consent to participate. The participants provided consent and responded to 12 individual interview questions as well as nine focus group interview questions for the study, which appear in Appendix A and Appendix B.

A purposeful sampling strategy or criterion-based selection (Maxwell, 2005) for participation in this study required that the participants were utilizing Achieve3000 to provide reading instruction for students enrolled in third-grade reading courses. Participants were individually interviewed at their respective schools after their educational day. The interviews were conducted in their own classrooms as a method of encouraging comfort and convenience. The participants set the time of each interview so that the interviews were at a time suitable for them. Their classrooms were quiet and there were few interruptions during each interview. The location for the focus group interview was at Robinson Elementary in a private room designated as the conference room. The conference room contained a long table with seating for 12 people. The door was closed for privacy as well as to eliminate outside noise.

I collected data from three sources, which included six individual interviews, one focus group interview, and a reflective journal of the researcher. Each individual interview lasted approximately 20-30 minutes. Individual interviews were conducted from October 18, 2018 to October 25, 2018. There were 12 questions asked during the individual interviews. The focus group interview was conducted on November 14, 2018 and lasted approximately 30 minutes. Nine questions were asked during the focus group interview. Probing questions were asked to clarify information or when an answer of “I don’t know” was given. All interviews were transcribed, and a transcript of each participant’s interview was provided via email.

Number of Participants

Data were collected from six different third-grade reading teachers. These teachers each participated in the individual interview and a focus group interview. For example, two third-grade reading teachers from each school agreed to be interviewed individually as well as participate in the focus group interview.

Individual Interviews

Twelve predetermined open-ended interview questions were asked of each interviewee. I asked the questions as they were written to each of the interviewees. Clarifying questions were provided in neutral format by stating “can you explain further?” or “please, tell me more.” The data collected in the individual interview format, the written interviews notes, and the reflective journal of the researcher, are stored electronically with a password required for access in a secured location for the next five years.

Focus Group Interviews

Nine predetermined open-ended focus group interview questions were asked of the interviewees. I asked the question as written to the focus group participants. Clarifying questions were provided in neutral format by stating “can you explain further?” or “please, tell me more.” The data collected in the focus group interview format and the written focus group interview notes, are stored electronically with a password required for access in a secured location for the next five years.

Data Recording

I collected the data through open-ended interviews that included 12 questions (Appendix A) as well as open-ended focus group interviews which included nine questions (Appendix B). I utilized a journal during the interviews to record significant impressions, keywords, and notes about the responses of the participant as they occurred. Data were recorded on two digital audio recorders that are also password protected thumb drives, which is where the data is stored until it is destroyed after five years. Collection went smoothly, with all participants seeming at ease during the individual interviews and the focus group interview.

Variations from Chapter 3 and Unusual Circumstances

Only one variation occurred in the data collection process. The original plan for data collection, discussed in Chapter 3, needed slight revision during the data collection phase. In the original plan, participants would be selected from two Oceanside, Florida schools. Due to the fact that the minimum number of participants to achieve saturation could not be obtained with only Robinson Elementary and Wallace Elementary, Billings Elementary was added as a third research site in order to obtain sufficient participant sampling.

During the data collection in the classrooms, teachers who were not participating in the study wanted to come in and join in the conversation. This was not expected, and they were politely asked to leave. They asked what we were talking about, and then wanted to give their opinion. I encouraged them to complete a hard copy of the consent form, and I would be more than happy to hear their thoughts. Many declined the offer to

participate because of their schedules. The other unusual circumstance was that two of the principals I contacted originally agreed to allow me to contact their third-grade reading teachers in order to request their participation but then never responded to my email communication, my request for a phone number to reach them, or my email correspondence.

The interviews were recorded using two encrypted voice recorders. Encryption is a process that is used to prevent unauthorized access to data by converting the stored information into code (Barnhill & Barnhill, 2014). Two password protected voice recorders were used, this was in case there was a malfunction with one of the recorders, but neither recorder malfunctioned. The playback was clear, and no barriers were encountered when transcribing the interviews.

Data Analysis

As described in chapter 3, I utilized Atlas.ti to assist in my data analysis. The collection of data through the individual interviews, focus group interview, and journal of the researcher were the methods used to collect information-rich and meaningful data in this basic qualitative study. Data analysis involved listening to the data and transcribing information to develop codes. Data were prepared for analysis after transcription. After the transcriptions were reviewed for accuracy, they were coded for relevant concepts, patterns, and themes. I read through each transcription and each transcript was e-mailed to individual participants for their confirmation of its accuracy, to which they confirmed.

Saldaña et al (2014) put forth that coding is investigative and exploratory where similar codes are clustered together to develop higher level meanings and propositions.

Initially, I read and reread the transcripts to gain an understating of the narrative from each participant. During this time patterns, words, and phrases that reoccurred were noted. These data were then uploaded into a Computer Assisted Qualitative Data Analysis Software (CAQDAS) known as Atlas.ti. This program facilitated the organization of data. Atlas.ti is specially designed to assist with the analysis of large amounts of data within qualitative research data. Atlas.ti helped by grouping the participant responses into thematic and patterned data. The collected data were analyzed at my home in a private room. These data were coded for specific themes that emerged as a result of the interviews.

The process of analyzing data was iterative. As I repeatedly went through the lines of data in each transcript, I developed codes that emerged in the data analysis process. I gathered all that participants stated in the interviews and focus group and placed them in thematic nodes that I created in Atlas.ti. Although entered into this program, manual comparison of the data was conducted. Throughout this process, the individual sentences were coded, followed by categorizing those sentences and identifying themes within the presented data. Further explanation on theme development are to follow.

Creswell (2013) and Merriam and Tisdell (2015) affirmed that axial coding, open coding, and selective coding are the three strategies to coding data. I began this qualitative study with open coding. Open coding allowed me to begin identifying initial categories while utilize large amounts of data. This was the initial stage of the coding process which afforded the opportunity to reduce information to a manageable size. In

order to identify the most important categories, I looked at all of the document analyses, journal notes, and interview transcripts.

Once I identified the categories, the axial coding strategy was best suited for establishing themes among the categories by way of comparing all of them. Repetitive words in the notes were highlighted as I read through the data. The data was reviewed a second time in order to identify those words which have the same meaning but spelled differently. These words which are not only similar but repetitive were used to develop themes. Selective coding and member checking were used in order to analyze the data. Furthermore, member checking was utilized to make certain that I correctly interpreted any feedback from the participants.

I determined the key findings by reintegrating the themes in a manner to answer the central and related research questions. The themes described below reflect the purpose and research questions of this study. Therefore, the themes reflected the teachers' views and opinions of using Achieve3000 to prepare for the Florida Standards Assessment.

Discrepant Cases

The process of member checking was utilized to develop an accurate reflection of the responses and was used to identify any discrepant cases. Discrepant data challenges the findings or expectations of a study (Merriam, 2002). Any data that was collected which also presented views contrary to the established evidence (Creswell, 2007) might have presented issues of validity within the data collection process. There were no discrepant cases discovered during the data collection process. Therefore, the need for

any additional categories to be created did not exist and as a result none were reported as Creswell (2007) indicates. This Results section of this chapter will offer further explanation.

Evidence of Trustworthiness

Trustworthiness in qualitative research indicates the degree of rigor. Furthermore, trustworthiness serves as an evaluation tool of the worthiness of the research (Morse, 2000). There were several approaches utilized for producing verification and trustworthiness as suggested by Lincoln and Guba's (1985) as well as concepts of credibility, confirmability, dependability, transferability, and reliability (Creswell, 1998). The specific strategies that were utilized in order to curtail any threats to the trustworthiness of the data collected was incorporated within the study.

Credibility can be labeled as the extent to which the interpretation of the data relates to the sample population and are accurate (Creswell, 1998). Credibility was assured by including information that indicated the manner in which alternate explanations, patterns, and themes were discovered or utilized. The use of detailed descriptions, triangulation of data, member checking, and researcher bias were the validity strategies for this qualitative study. Furthermore, I made note of my own personal exposure to differentiated reading software. Moreover, every effort was made to acknowledge any possible bias by illustrating my attitude and opinion of differentiated reading software. Credibility resulted from employing member checking from all participants. What is more, all of the participants had an opportunity to examine the

interview transcripts and recommend revisions to make certain they were accurate. There were no adjustments from the strategies indicated in Chapter 3.

According to Maxwell (2013) and Cope (2014), the conclusions of a research study can be tested and grounded by way of detailed descriptions of the data.

Transferability was achieved by way of implementing the utilization of rich, thick descriptions. Furthermore, I was able to produce detailed data by transcribing the audio recordings of the individual face-to-face interviews and the focus group interview. There were no adjustments from the strategies indicated in Chapter 3.

According to Lincoln and Guba (1985), dependability can be described as the degree to which transparency is evident in research based on the consistency and reliability of the research content. Dependability of the research data findings was established by way of the triangulation of data. To help guarantee accuracy, I reviewed the interpretations and collected data with participants. Furthermore, I employed the strategy of member checking for the duration of the data collection process. Moreover, Atlas.ti was used to enhance dependability because it has the ability to manage and store transcribed data as well as their analysis in a platform that is secure. There were no adjustments from the strategies indicated in Chapter 3.

Conformability relates to a researcher's interest in impartiality in qualitative studies (Hays, Wood, Dahl, and Kirk-Jenkins, 2016). Therefore, a step that was taken to satisfy the internal validity test and preserve the confirmability of the research was to bracket my thoughts and predispositions during the interview process. Furthermore, I reexamined the data collected to make sure that the emerging themes were the

participants' accounts of their experiences. Confirmability was also addressed via the acknowledgment that my presence had no influence on the participants as well as the acknowledgement that the participants presented no influence on me while this study was conducted. There were no adjustments from the strategies indicated in Chapter 3.

Results

Findings Relative to Research Question 1

An analysis of the first research question, revealed four themes. All of the participants confirmed their perception regarding the use of Achieve3000 as a tool to improve students' overall reading ability. These themes included: provides objective data, aligns with FSA, offers additional benefits, and functions as expected. Each of these themes is addressed below.

Table 3

Summary of the results of this study in relation to research question 1.

Research Question 1: What are third grade-reading teachers' views of Achieve3000 as a tool in preparing students for the Florida Standards Assessment in English Language Arts?

Theme 1: Provides Objective Data

Theme 2: Aligns with FSA

Theme 3: Offers Additional Benefits

Theme 4: Functions as Expected

Theme 1: Provides Objective Data

Under this overarching theme, all of the teachers appreciated the objective data they obtain from Achieve3000. Through the use of this program, they are able to receive their students' Lexile levels and reading proficiency levels with numerical data. Their explanation of these subthemes is indicated below.

Generates Lexile level scores. A term that surfaced frequently throughout data collection was Lexile or Lexile Level. According to the literature, the Lexile Level is a popular method used by schools to measure a reader's ability (Scholastic, 2018). Most of the participants appreciated the differentiation that Achieve3000 offers. There are numerous Lexile leveled readings available that cover various topics of which readers might find interesting. Furthermore, Achieve3000 offers different tools so that everyone can be actively engaged during the entire time the program is being used. One of the participants, P2, spoke about how students are allowed to read at their individual reading levels but given articles that will increase their proficiency. P2 stated,

I like that fact that it provides them instruction on their Lexile. You're dealing with a lot of students that perform below grade level, expectations when, they feel successful when they have articles that they can read because it's on their Lexile, and them having a goal to reach, we speak proficiency all the time, so we give them goals to work towards and they try by responding to those articles to make sure that they are passing.

Many of the participants appreciated various program components and especially the different Lexile Levels, the constant feedback, and the reporting options. P1 stated, "So, it exposes them to vocabulary and the actual grade-level text where they should be working on." This is important because instruction on Lexile Level ensures that readers are reading at the proper level of difficulty to increase their skill. Each of the participants gave similar responses as they recognized the usefulness of this functionality. Providing readers with articles that are on their level gives them confidence to continue reading

when they feel the accomplishment of completing assignments successfully.

Additionally, providing readers with articles to read that are not only on their level but interest them is an effective way to strengthen reading.

Each of the participants showed an appreciation for the ways in which Achieve3000 adequately or very adequately supported below-level, on-level, and advanced-level readers. P5 stated, “I like that students can independently read the articles at a level that’s appropriate for them. The program has already matched them appropriately to the text, so I like that it’s appropriately matched for them.” Moreover, P5 elaborated on the enrichment component of Achieve3000 that helps to increase interest as well as proficiency. P5 stated,

There’s even an enrichment tool for students that are really high, your already college and career ready students. There’s an enrichment piece that a teacher can go in and activate that. It will give them more enriching things, inside their article more enrichment activities that will stretch that student beyond where they are.

Most of the participants spoke about their appreciation for the ability Achieve3000 had to offer support for low level readers but also gives opportunity for enrichment for those readers who are reading above third-grade level. These same participants spoke about their appreciation for Achieve3000 ability to offer support for low level readers but also gives opportunity for enrichment for those readers who are ahead. Challenging or as the participants would say, “Stretching” the student beyond where they are regardless of low-level readers or high readers. Each of the participants agreed that Achieve3000 enrichment and stretch articles increased both interest and proficiency. Achieve3000

goes beyond meeting students where they are in regard to reading, it also functions to build on the skills readers have learned. P3 added, “The fact that they provide stretch articles to help students strive towards getting to grade level expectations and provide them with a level set every month so that they’ll know if they’re moving towards the standard.”

P6 spoke about how she notices the reaction students have when it comes to Achieve3000 and believed that students had positive views. P6 stated, “The kids for the most part, I think they enjoy getting on. They love earning the points, so I don’t know that they necessarily see that it is too hard.” Furthermore, P6 spoke about how she felt that her students had a desire to utilize Achieve3000 as they enjoy the points systems, and they do not make mentions of the degree of difficulty.

Participant comments about the effects of Achieve3000 on student learning were mixed. P3 explained, “An advantage is that we can track the student’s progress, whether see if the students are passing the lessons proficiently.” Many of the participants reported similar positive aspects of Achieve3000 and noted that they especially like the variety of articles, high-interest and engaging content, the use of technology, instant feedback, independence, and the impact on student reading proficiency. P5 claimed,

You can get two year’s growth or three year’s growth depending on how many articles you pass that year, but it is a program designed for growth. So, I see where it has impacted that, but my proficient readers, if they come in proficient, they’re staying proficient.

Two of the participants spoke about the luxury of having progress monitoring to track proficiency level. Furthermore, one of the participants spoke about how they have seen readers exhibit the ability to realize growth by two or three years in some situations as a result of utilizing Achieve3000. Those readers who were proficient prior to using Achieve3000 seem to excel effortlessly.

The interviewees were positive about Achieve3000 and found the materials comprehensive, engaging for students, and increased student achievement. To prove this P2 added,

I've seen more students that have been able to become proficient when it came to FSA because the majority of the text is informational that they will see and by them seeing this every week, the assigned articles and the growth each month, I've seen students become successful, working more towards grade level.

Each of the participants believe that students have become proficient when it comes to FSA as a result of their exposure to Achieve3000.

P1 then added, "I can say that Achieve has lined up from last year where students were showing their reading level, that's how proficient they were. If they were not proficient, it really lined up to where the students, how they did on the FSA." The majority of participants believed Achieve3000 was fun and a great way to learn to read and aided in monitoring student progress. They believed Achieve3000 allowed them to focus attention on specific students and provide individual assistance as needed. P3 added, "You can assign parents a parent account, and they actually have access to some of the same reports the teacher does, so if you have involved parents, grandparents,

extended family members.” P3 explained further that, “A pro is that a parent can log on with their account and know.” All of the participants appreciated the assessment component of Achieve3000 because it encouraged student motivation and monitoring. For instance, P5 said, “A parent can log on with their account and know, ‘Oh! I see you did so many articles today. You didn’t pass this one. What happened there?’ So, they can actually pull up the reports”. P5 appreciated the ability for parents to actively be involved in monitoring the progress of students, this helps to encourage them to continue to do well. Each of the participants believed that Achieve3000 gave indicators of how students would perform on the FSA due to the fact that the software provides statistics on how many articles have been read among others.

P2 and P6 expressed some frustration with Achieve3000 navigation and reported that the program may not be meeting the needs of all students. Each of the participants did believe that Achieve3000 reports allowed them to monitor students’ progress but some of them offered suggestions to improve the effectiveness. One of them, Dawn, stated, “Easier access for students to see what their Lexile is. On their home screen, it’s not there. It just tells them, oh, you have so many...and it’s a math symbol. But their Lexile level is nowhere on the screen.” P6 believed that Achieve3000 can be improved by making student Lexile scores more visible throughout the program. P2 said,

Well, I’ve seen the Lexile’s increase month to month for some of the students.

The practice, because they basically have 8 questions that they have to respond to, so getting them familiar with what they’ll see during FSA. The types of

questions, I think that exposure really helps with increasing their Lexile because they see those types of questions every time they respond to an article.

In summation, teacher interviews, teacher focus group interview, and the journal of the researcher supported this finding.

Provides student proficiency level. Participant comments about the effects of Achieve3000 on student learning were mixed. Each of the participants reported similar positive aspects of Achieve3000 and noted that they especially like the variety of articles, high-interest and engaging content, the use of technology, instant feedback, independence, and the impact on student reading proficiency. Two participants spoke about the luxury of having progress monitoring to track proficiency level. Furthermore, P2 and P4 spoke about how they have seen readers exhibit the ability to realize growth by two or three years in some situations as a result of utilizing Achieve3000. Those readers who were proficient prior to using Achieve3000 seem to excel effortlessly.

The interviewees were positive about Achieve3000 and found the materials comprehensive, engaging for students, and increased student achievement. Each of the participants believe that students have become proficient when it comes to FSA as a result of their exposure to Achieve3000. P5 appreciated the ability for parents to actively be involved in monitoring the progress of students helps to encourage them to continue to do well. Each of the participants believed that Achieve3000 gave indicators of how students would perform on the FSA due to the fact that the software provides statistics on how many articles have been read among others.

P2, P3, and P6 expressed some frustration with Achieve3000 navigation and reported that the program may not be meeting the needs of all students. Each of the participants did believe that Achieve3000 reports allowed them to monitor students' progress but some of them offered suggestions to improve the effectiveness.

P3 believed it was vital to monitor student progress and assign specific lessons as necessary. P2 required struggling students to redo lessons and P5 assigned fourth grade standards for advanced students. P2 said, "The types of questions, I think that exposure really helps with increasing their Lexile because they see those types of questions every time they respond to an article." P5 said, "Achieve3000 claims that if readers pass 40 or more articles in one year, they will have developed one-year in growth". Furthermore, P3 believed that Achieve3000 improved students overall reading ability due to the use of FSA like texts, different topics, practice strategies, and practice skills for filling gaps.

Theme 2: Aligns with FSA

To specifically answer research question one, the teachers reported their appreciation for Achieve3000's alignment with the FSA. Specifically, they stated the questions and format of the content matches the content they would encounter on the FSA, ELA section. As a result, the students have prior and consistent exposure to the exam-type content. Further description of the subthemes is reported below.

Resembles FSA. Five out of the six participants expressed a belief that it was imperative to differentiate the Achieve3000 curriculum to meet individual student needs. These participants also made comments relating to how they felt the curriculum on

Achieve3000 was closely aligned to the curriculum that that was being taught. P5 spoke about how it all began, she stated,

Originally, back in 2014, FSA was going to be all computer based. The mode was, within four years, from 2014, it was going to be computer based.

Achieve3000 served the method of getting kids used to reading online, and it was also computer based and nonfiction text.

Similarly, P3 added, “They’re getting the time to practice, being exposed to vocabulary and texts, that the text-dependent questions that are going to be assessed for those students in the classroom on module tests as well as preparing them for the FSA.”

Furthermore, P4 gave a similar response regarding building familiarity with FSA. P4 commented, “This gives them the exposure to the informational text, and it gets them, hopefully, ready for what they will eventually see, not only on FSA but in upper grades as well.” All of the participants believed that Achieve3000 prepares readers for the computerized version of the FSA by presenting them with similar format and structure. Moreover, there was a common belief that this was done to assist with the need to get readers exposed to reading online as well as taking online assessments. All participants understood that Achieve3000 was implemented to help readers prepare for the FSA and the district saw the importance of exposing students to components and functionality similar to what they would see on the state exam. Not only did the District wanted to get readers familiar with reading online, but administrators and staff realized the importance of getting readers exposed to what they might see on FSA in third-grade and beyond.

P1 spoke about how she felt it was important to expose her readers to text similar to what they will encounter when they take the FSA. She stated,

So it allows me as a teacher to be able to put that text in front of them and to slowly move through it, so they can at least be exposed to what they will see when it comes to the Florida State Assessment, and it won't be such of a shock to them because they've never seen grade-level text where they should be proficient.

Similarly, P2 responded,

If you don't know, the kids just pop on and they start doing that, those articles are harder because they look like FSA. They do have, they align to all of our standards, but you only get one a month.

Exposing readers to articles that will present them with text similar to what they will see on FSA can give them a greater chance of earning high scores. Monitoring what students are reading will help to utilize their time with Achieve3000 wisely and encourage them to utilize their time on Achieve3000 in a productive manner. Presenting readers with FSA type text and staying abreast of where they are, allows teachers to monitor what they are doing in order to help them remain on task and successful. Achieve3000 affords teachers the opportunity to teach using articles similar to those they will see on FSA.

Furthermore, Achieve3000 exposes third-grade readers to FSA type questions and offers opportunity to gain familiarity.

Thus, each of the participants believed it was worth their time and efforts to implement Achieve3000 to help their students prepare for the Florida Standards Assessment. Of the four participants who said student Lexile Levels improved, all

indicated students made “significant gains.” One said, “It exceeded my expectations,” and another said, “It really helped with comprehending nonfiction texts.” P2 spoke about it as follows,

Well, I’ve seen the Lexile’s increase month to month for some of the students.

The practice, because they basically have eight questions that they have to respond to, so getting them familiar with what they’ll see during FSA. The types of questions, I think that exposure really helps with increasing their Lexile because they see those types of questions every time they respond to an article.

P1 reported how exposing students to similar questions help them determine how to best respond to the questions they are presented. P1 said, “And then the way the questions are worded can be confusing to students and have them look at the bold words when they ask what’s not in the article.” Three of the six participants mentioned how they viewed Achieve3000’s impact on student Lexile Levels and the growth their students have experienced as a result of this exposure. All participants mentioned that they saw gains at different magnitudes. The exposure to Achieve3000 has helped to improve Lexile Level scores but gives exposure to FSA. The exposure to Achieve3000 has helped to improve Lexile Level scores and gives exposure to FSA type environment. Achieve3000 presents readers with a number of tools which help them to be better prepared to take the FSA. All of the participants stated their belief that exposing their students to these type of articles leads to less confusion when it comes time to take the actual exam.

Presents exam type questions. Five of the six participants reported several positive aspects of using Achieve3000 to prepare for the Florida Standards Assessment.

P2 stated, “I think all the different types of questions, too, and the activities are helpful to check comprehension and help understanding, which I think will prepare them for the FSA to some degree.” Furthermore, P6 spoke about how she believed that Achieve3000 was effective at providing remedial instruction for her students. She stated, “The questions are not necessarily exactly what they would be on the FSA, but they are still matching with the standard, so they are giving kids the practice and the exposure to nonfiction.” These participants also spoke about how Achieve3000 presents readers with questions and activities that will prepare readers for the FSA. Furthermore, these participants also believed that questions which resemble those included in the FSA help to get students prepared for what they will see when it is time to take the exam. Each of the participants showed an awareness of the importance for the students to receive practice similar to FSA.

All of the participants believed Achieve3000 incorporated individual interests, promoted student enjoyment of reading, and allowed students to improve proficiency. The interviewees went on to speak about how the articles and tests at the end of each article were engaging as well as properly paced. P2 mentioned, “The articles are current articles, even some which may be in the past, but it seems to engage students’ interest when they are able to search for the articles or topics that they think may be engage them.” Moreover, P6 added, “I always go back to the questions that they give them, the little activity at the end. So, there are eight questions; I feel like that’s a strength. Like, it is just the perfect amount.” Each of the participants spoke about how the plethora of articles that readers have to choose from keep them engaged. Moreover, all of the

participants believed that Achieve3000 presents readers with questions at the end of each article that are similar to those on the FSA. Furthermore, they believed that the Achieve3000 activities are given at an adequate pace.

Conversely, three of the six participants reported specific parts of Achieve3000 that they did not enjoy. P4 expressed, “And the fact that it, I know it’s based off of informational text, but it doesn’t have a literary text, if it’s trying to help us with Florida State’s assessment. So, that’s a con because they don’t give that exposure to them to the literary side.” Moreover, P5 stated, “Some of the questions are not appropriate to our standards. They don’t really match our standards all the way, so that would be, that’s a con for teachers because everything in our county is standards-focus driven. Out of the eight comprehension questions, there are two that fit our standards.” Furthermore, P5 stated, “Actually, building it so it could be closer to our standards and model what they’re really going to see on Florida State’s assessment.” P1 concluded, “Our test is paper, the disadvantage is that they are not able to, you know, write notes on it, because it’s not paper. We can print it out for them, but they will not be doing the test on the computer.” Four of the six participants reported they believed that adding literary text will help better prepare readers for the FSA. Furthermore, these participants spoke about how the district is standards driven but Achieve3000 does not incorporate all of those standards.

Theme 3: Offers Additional Benefits

In addition to the aforementioned benefits of Achieve3000 as it relates to reading proficiency and FSA alignment, all of the teachers reported several subthemes as added benefits. These benefits surrounded the ability to challenge their students with more

advance content, exposing students to various genres of literature, and developing skills being useful across other subject areas. A deeper exploration into these subthemes is reported below.

Delivers challenging exercises. Four of the six participants believed that when it comes to student skills, Achieve3000 was effective in improving students' comprehension, critical evaluation of informational texts, and vocabulary. P5 stated, "Achieve in my classroom allows me to differentiate for my students that need to be more challenged." P1 spoke about how the program is utilized in her classroom. In her explanation, P1 added, "We also use it in complex text, is where I print out a stretch article maybe above their reading level or on reading level, and I challenge them to go through the text as a group where they summarize, they predict, they connect, make connections to the text." Differentiating with Achieve3000 gives all of the participants an opportunity to effectively challenge readers on all levels. Each of the participants expressed that they appreciate that they can utilize Achieve3000 in various ways no matter what is being taught. Assignments can be used to teach critical thinking and vocabulary that students will need a mastery of in order to score well on the FSA.

Most participants expressed satisfaction with the progress students made and the advantage of having assessment components to see and measure student growth. P5 stated, "I can give them another article at a higher level and expose them to that level to see how they are performing with more challenging text. So, it allows me to differentiate." Moreover, P3 stated, "The articles that they provide, the fact that they provide stretch articles to help students strive towards getting to grade level expectations,

the types of questions that the students have to respond to or be able to answer, and the fact that they give them, provide them with a level set every month so that they'll know if they're moving towards the standard or not, the expectations.” Similarly, P2 explained,

The stretch articles, because having a student reread the same article but now at a higher level, great exposure to students. Because even if they weren't successful with the 1st try, now I do have another opportunity, and you should be better because you should remember what you just read.

Four of the six participants spoke about how Achieve3000 has the ability to constantly push readers to the next level. This has shown to help readers meet grade level expectations. Achieve3000 allowed all of the participants to increase the difficulty of the tasks in order to help students move to the next level.

Three of the six participants also appreciated that the articles teach students about various cultures and events. Students are exposed to more non-fiction similar to FSA by way of utilizing Achieve3000. P4 said, “The articles and the passages are informational. They're nonfiction. This assists kids in experiencing text that will be similar to the text that will be on the FSA, as far as nonfiction goes.” Therefore, P4 believed that Achieve3000 helped to prepare readers for the FSA by presenting them with items similar to what they will experience on the test.

P1 believed that Achieve3000 was capable of and effective at providing reading instruction for her students. She noted that her classes are comprised of different learning levels; therefore, she modified the time spent using Achieve3000 based on student ability. Participants used Achieve3000 in addition to their primary teacher led instruction. P5

explained how she preferred to introduce and teach skills via teacher led whole group instruction. P5 said, “I think the program itself did not improve their learning for reading proficiency, it was a combination of the program along with teaching them strategies to help them get through the articles.” Likewise, P2 expressed the viewpoint that Achieve3000 is a supplementary resource used to increase student reading proficiency and it allows for small group instruction as needed. Participants believed it was worth their time and effort to implement Achieve3000 into their third-grade reading classrooms.

Introduces non-fiction text. Three of the six participants appreciated that the articles teach students about various cultures and events. Students are exposed to more non-fiction, similar to FSA, by way of utilizing Achieve3000. P1, P4, and P6 believed readers benefited by giving them the freedom to choose from a wide variety of books on their reading level. P6 explained, “I would imagine that it’s continually, like, it’s pushing them in the right direction because it’s giving them a nonfiction text, it’s giving them the vocabulary exposure that they would need to continue growing as a reader.” These three participants did note, however, that the Lexile levels were only gauging reading of informational text and that this did not necessarily transfer to literature. P1 shared, “No literary text. It does not have literary, so if I have to go over the standards and I’m looking for the literature side of it, it does not have that much at all.” Each of the participants maintained that it was worth the time and effort to implement Achieve3000. Thus, all of the participants believed that Achieve3000 was worthwhile for preparing for the FSA. Achieve3000 continually pushed readers to improve their reading proficiency.

The majority of participants believed that Achieve3000 would better prepare students for FSA if literary texts were included.

When the teachers integrated Achieve3000 into reading instruction, differentiated instructional opportunities emerged for the teachers and students by providing additional modifications for struggling students such as assistive technology. All data sources supported the finding that Achieve3000 was used to remediate and enrich student learning based on individual student needs. Teachers used Achieve3000 to implement small group instruction, which allowed for more individualized student support. Participants also used Achieve3000 data reports to monitor student progress and to inform curriculum decisions.

Proves valuable in other subject areas. All of the teachers acknowledged the skills developed from Achieve3000 can be beneficial across subject areas. For example, P5 explained that, “I think for math, I teach reading, but the math teachers say their greatest struggle right now is that the kids can’t read the word problems and understand what they’re saying.” Additionally, P3 expressed her belief by stating, “If there was some component for word problems, that would be, I know that’s what they say they’re struggling with right now.” P3 went on to maintain, “My daughter is a 7th grader, so she’s been doing Achieve since third grade, but other subjects, her school does utilize other subjects. Social studies. They do science. They do offer that, and I think it complements the background knowledge, so it can only help.” P2 also shared, “We use it more so to find more science articles, with science, because I teach reading through the content. So, we try to find those articles and provide them with 30 minutes a day to get

through completing their articles that are assigned for the week.” All of the participants believed that coupling the Achieve3000 reading component with other subjects will help students improve in those areas as well. Each of the participants believed that implementing word problems would help students in both reading and math.

Theme 4: Functions as Expected

To specifically answer research question one, all of the teachers indicate that Achieve3000 met their expectations and the intended purpose of improving students’ reading ability. Additionally, they believed that this program is useful in differentiating reading instruction, due to its meaningful activities and alignment with district and state standards and objectives. Further explanation of these subthemes is reported below.

Possesses standards alignment. Two of the six participants mentioned that the Achieve3000 articles align to the curriculum as well as provide topics for discussion. These participants also liked having the option to pick articles and topics that were relevant to the numerous occasions or stories which align with existing classroom curriculum. P4 spoke about the importance of understanding the way in which students are scored based on the standards. P4 stated,

There is a report that you can go to and it lets you know how your kids are doing on the sub standards, but when you look into that report, it’s a percentage, and it’s only if the article they did will correlate with that standard, so it’s still not a true picture because what if you’re saying my kid is zero percent? But that’s only because they have not done an article that hit that standard.

Conversely, P5 reported one negative aspect of using Achieve3000. She believed that Achieve3000 was a good program overall and expressed that she really liked Achieve3000. However, she did reiterate, “There’s always one question that’s aligned to our standards, and it’s usually the main idea question, that’s always aligned, but some of the, and the context clues questions are aligned, so there’s two. There’s two out of the eight that really work well for our standards, the others do not.” Based on the most participants’ responses, Achieve3000 appeared to align with the district standards for third-grade reading.

Monitoring where students are in relation to the standards is key. Participants encouraged their readers to choose articles which related to those standards in order to make best use of their time. Understanding the reports and percentages that detail the progress of each student is key to helping them improve. Although Achieve3000 aligns with the district standards, a two of the participants spoke about how the questions that relate to main idea always seem to relate to the standards but the limited response options of “Yes” or “No” questions do not present readers with questions they will see on FSA. Furthermore, P3 spoke about how the questions could be improved by making all of them resemble exam type questions. The questions that are presented to readers can be improved to more closely resemble what will be on FSA and it is important to ensure readers are exposing themselves to articles that will help to meet the standard.

P3 shared a similar view of Achieve3000 and its alignment with the standards, “Aligning the questions with the standards. I think that would be key.” P5 believed the Achieve3000 curriculum aligned closely to the District Standards. However, she believed

that Achieve3000 did not encompass all of the District Standards. P5 stated, “Find a way to, number one, make all of our standards be on there so that way we have a true and accurate picture and then that’s a report that we can pull up, or maybe we can assign an article based on a standard.” Regarding Achieve3000, there was variability in their opinions of the effect it has on readers’ comprehension proficiency. Four of the six participants offered suggestions to add all district standards to Achieve3000 as this will help to develop an accurate assessment. Adding functionality for teachers to assign articles based on standards was another suggestion. Participants felt that when it came to preparing readers for the FSA, Achieve3000 could be improved by focusing exactly on district standards. There was also mention of the desire to have the ability to assign articles based on those standards, and improving the reporting associated with standards. Each of the participants believed that focusing more on the district standards and reporting structure can be an improvement made to help better prepare readers for the FSA. All of the participants supported the manner in which Achieve3000 aligns with most of the district standards and view it as a positive aspect that can use improvement to include additional standard alignment.

Meets expectations. Each of the participants indicated that Achieve3000 was improving their students’ reading proficiency. All of the participants believed that Achieve3000 was effective with improving the reading ability of third-grade readers. Five out of the six participants spoke about how the software meets their needs as third-grade reading teachers as well as it being effective. P4 said,

Well, I have been working with it for several years. So, I feel like what I was exposed to really have not changed. It is probably like the same, which isn't bad, it's just like this is how the program works, and I have seen the consistency of it. Likewise, most of the participants agreed that Achieve3000 improved reading instruction. P4 stated, "Initially, because I wasn't familiar with it, so it [Achieve3000] kind of seemed like just another program that I had to get my kids to do. Once I saw all the different features and the way I could use it to help benefit my students, I believe it is a better program to push my students towards the goal of being successful on the FSA." In addition, P1 expressed,

I think, from the beginning, maybe not using it correctly to now knowing more about it and being able to use it to benefit my students the best way I can use it. I think that my perception has changed that way just because I know more about the program. And then I want to know more, so I have questions, I ask, or I will go and seek and look, and think of ways to help the students.

P5 also shared,

So, I immediately dismissed it because if you weren't going to tell me how a child was performing both on literary text and informational, you're not giving me a big picture. But as we grew in Achieve and as I had more training from the different specialists, I learned that no one program is going to tell you everything about a kid."

Similarly, P6 said, "So the program to me is still doing what it says it'll do; my kids are just struggling with it because they're just not equipped to read with the proficiency

needed.” The responses thus far in this analysis are indicating mixed and occasionally conflicting perceptions among the participants. Each of the participants believe that Achieve3000 is helping to improve reading as well as prepare readers for the FSA. All of the participants have an appreciation for Achieve3000 but understand it will not offer a comprehensive assessment; however, at the macro level, it offers a number of useful tools. These participants also believed that Achieve3000 had the ability to provide readers with the proficiency level needed to score well on FSA. Each of the participants had positive views about Achieve3000 and its effectiveness. They agree that Achieve3000 has proven to be effective. Collectively, the participants spoke about how Achieve3000 exceeded their expectations, even those who had little buy-in initially.

In addressing the second research question, each of the participants confirmed their views of Achieve3000 as a tool in preparing students for the Florida Standards Assessment in English Language Arts. These themes that emerged from the qualitative data analysis included: improves overall reading, encourages excitement for reading, delivers ease of use, and creates varying results for struggling and advanced readers. Each of these themes is addressed below.

Table 4

Summary of the Results of This Study in Relation to Research Question 2

Research Question 2: How do third grade-reading teachers perceive the use of Achieve3000 as a tool to improve students’ overall reading ability?

Theme 1: Improves overall Reading

Theme 2: Encourages Excitement for Reading

Theme 3: Delivers Ease of Use

Theme 4: Creates Varying Results for Struggling and Advanced Readers

Theme 1: Improves Overall Reading

The subthemes under this overarching theme reflects the teachers' views about the efficacy of Achieve3000 in improving students' overall reading ability. They specifically relate to the micro skills of the reading process that are improved through the use of the program. As reflected below, the majority of teachers recognized how Achieve3000 helped students build background knowledge, to foster meaningful associations to content and improve reading comprehension. Additionally, most teachers also believed that through these techniques, the gaps in reading are minimizing. Further explanation of these subthemes is indicated below.

Builds background knowledge. An analysis of research question two indicated that the participants appreciated most of the characteristics of Achieve3000; however, they offered recommendations for improving some other aspects of the program. Each of the participants mentioned they liked the interesting articles and the variety of options teachers and students could choose from. P5 stated,

A great advantage is the amount of the background knowledge that students gain. There are various, such a variety of topics, that Achieve3000 exposes kids to. A lot of expository text, informative text, some opinion, argumentative type of materials, that's been very helpful. It's great to help kids to understand just they have to read and comprehend their article.

Furthermore, P3 shared, "Achieve3000, it gives the students an opportunity to see text at their reading level, but it also offers them a stretch article where they can read it at the actual grade level." All of the participants believed that building background knowledge

broadens the readers' frame of reference and increases the likelihood they will learn new words. Most of the participants spoke about how the different types of text are presented to readers and allows them to work at or above their reading level. Half of the participants made mention of their appreciation for the exposure to new and familiar topics that Achieve3000 provides. Furthermore, this same group noticed that Achieve3000 presented these new topics in various ways, which has been associated with students' increase in background knowledge.

P5 went on to say, "I think Achieve3000 is closing the gap with kids that are far below." However, one participant stated that the program measured Lexile levels for non-fiction text only and there was no way to be certain this improvement could be generalized or transferred to fiction text. P4 stated, "I know the purpose was mainly the non-fiction, but they're not doing so well in literary." These teachers believed that although Achieve3000 helps readers improve their reading skill, adding literature will help to boost their overall reading ability, across themes. Achieve3000 provided the teachers with each student's Lexile Level based on their performance on the program activities. Achieve3000 did a good job of assessing the comprehension of non-fiction but three of the six participants felt that adding literature will help to improve reading scores and provide variability. According to all teachers, Achieve3000 closed gaps and half of the participants believed that challenging students with different genres may improve their comprehension of literature as well. All of the participants understand that one of the purposes of implementing Achieve3000 was to help students with non-fiction

comprehension, but they also believe that adding literature will benefit their readers as well.

P3 believed Achieve3000 was an effective program for remediating weak skills and differentiating instruction for individual students. She also believed that Achieve3000 gave her the ability to differentiate more effectively. P3 stated,

They are also able to dig in and fill in the gaps of reading and of the reading strategies, such as comprehension, vocabulary. There are a lot of strategies, context clues, things that the students are learning in class, they're able to make those connections once they're able to do the lesson on their own.

P3 spoke about how Achieve3000 made differentiating tasks easier and supported what was being taught in class. She also mentioned her appreciation for the way Achieve3000 introduced clues and strategies to help readers make connections. P4 commented, "This gives them the exposure to the informational text, and it gets them, hopefully, ready for what they will eventually see, not only on FSA but in upper grades as well." P1 said,

So it allows me as a teacher to be able to put that text in front of them and to slowly move through it, so they can at least be exposed to what they will see when it comes to the Florida State Assessment, and it won't be such of a shock to them because they've never seen grade-level text where they should be proficient.

Participants shared similar comments about how Achieve3000 helps readers to build background knowledge by exposing them to cities, states and other topics that are new to them. P3 stated,

By getting the children opportunities to practice those skills, filling in the gaps that they're struggling in with reading, they're also able to make connections. So, as a remediation of what's being discussed and taught through small-group instruction as well as whole-group instruction, and that's also like, just giving them practice and helping them to become a better reader.

All participants agreed that Achieve3000 supports differentiation and works well with lessons being taught in class.

Closes achievement gaps in reading. All of the participants believe that Achieve3000 components were useful and comprehensive, and they described many benefits to the program in regard to closing gaps students present in regard to reading proficiency. P1 offered a description of how Achieve3000 helps to close gaps in reading. She stated, "Achieve3000 helps them because it gives them that exposure. Not only are they given that exposure, they have to be able to complete reading connections that slows them down to understand the text, what they should be doing." Similarly, P3 valued the use of Achieve3000 during small group instruction. Each of the participants agreed that Achieve3000 helped third-grade readers improve their reading comprehension ability as it relates to non-fiction texts.

The interviewees had an appreciation for the way in which Achieve3000 offered support for low-level readers. P5 stated, "I like the accommodations that Achieve provides for students that are, they call them BR readers, those beginning readers. The program will give them extra accommodations, it may read a question to them for certain aspects of the program." This indicated that P5 believed that Achieve3000 possesses the

capability to guide readers in a manner that will help to improve their reading scores. All of the participants considered that Achieve3000 was best used to reinforce or practice previously taught skills. Furthermore, each participant believed that Achieve3000 offered adequate help for what they called “struggling readers” by adding supportive interventions. The majority of participants described how they appreciated that Achieve3000 allowed them to adjust the manner in which they taught struggling readers by giving them exposure to non-fiction via audio playback or reading. According to most teachers, Achieve3000 does an adequate job of trying to reach low level readers and bring them up to speed closer to their peers and grade-level. School officials notice the scores and began to take measure to communicate the importance of earning high scores on the FSA.

The interviewees indicated that there was an awareness of the importance of reading scores due partly to the school-wide publicity that the program receives throughout the year. P4 stated,

It [Achieve3000] has been used primarily by 3rd, 4th, and 5th grade. There was a data wall that was placed in the hallway to encourage students to score well on their first try on all of the quizzes after they read an article. I do not believe kids were always successful, though, so we, over the years, we’ve been trying to give more incentives to help the kids try to do better their first try.

The teachers reported that school administrators realized as students began to matriculate into later grades that reading scores began to decline. One of the ways school administrators began to get students involved was to put up data walls to encourage them

to aspire to earn high scores and add a layer of accountability for the students. This demonstrated an understanding by school administrators that there was a need to assist students in improving their reading scores on the FSA. The administrators' attempts at improving student motivation to score higher initially, was to implement a data wall, accessible by all students and staff.

Theme 2: Encourages Excitement for Reading

Under this overarching theme, majority of the teachers reported an increase in student involvement and motivation. They attribute these factors to the interesting stories. Additionally, teachers also believe the incentives provided within the program make the activities enjoyable. Further explanation of these subthemes is reported below.

Stimulates fun for reading. Participants believed the Achieve3000 games were fun and promoted excitement towards learning to read. P1 stated, "It tries to make it fun for the students, so they can earn shields and badges, and I think that is a positive thing for them, because they look at their points more so, oh, I got this! I did this! I made 100!" Additionally, P6 spoke about how their principals promoted and were supportive of all readers using Achieve3000. Many of the participants gave specific examples of how principals use awards and clubs to encourage readers to earn high scores. P6 stated,

Doing something for the students who show a certain amount of points every month, where she will have them come into a room with her and they'll have a Starbucks club, so the kids can look forward to that if their Lexile increases, and they can have, she'll bring, like, a celebrity in or different things.

The virtual and school-based incentives provided by the program is said to encourage the students to place more thought in their answers to the questions. She believed that students might be likely to submit answers without trying if it were not for a positive incentive like those offered by Achieve3000. Each of the participants shared their belief that making reading fun for students helped to encourage them to perform well.

According to the teachers, school administrators input demonstrated to the students the importance of scoring well on the FSA. Furthermore, all of the participants spoke about how the use of positive incentives has helped motivate readers. Moreover, each of the participants believe that their readers wanted to score high and enjoyed the benefits that come with top scores. They hoped that this would translate into the same type of effort on the FSA.

P6 stated, “I think they like to get on, but they don’t really get, like, if they fail a bunch of them. A tutorial is a fantastic idea.” P3 stated,

I wish it would also have goal setting, more goal setting in the program.

Struggling readers are learning how to read, not struggling as much, they are feeling good about themselves, and that energy has turned into really having an enjoyment for reading.

P3 and P6 believed that their struggling readers benefited from tutorials by helping to guide them along the way. Four of the six participants spoke about how once struggling readers became better readers they began to enjoy doing so.

The majority of participants believed Achieve3000 was a fun and helpful way to learn third-grade reading. More specifically, the teachers found the Achieve3000 games

to be fun which made learning reading more exciting. They also found the Achieve3000 lessons to be helpful across levels. Lastly, the participants spoke about how students enjoyed working with Achieve3000 via classroom computers or at home.

Offers incentives. The third-grade reading teachers were pleased by student engagement with Achieve3000. P1 spoke about how she valued the games and positive incentives used to encourage students to put forth effort and focus while working with Achieve3000. P1 said, “It awards them and then they can be the top score of the day.” Furthermore, P1 stated, “So, it gives them some incentives within, and you can make your own incentives like we have a store at the end of the month. So, whoever’s Lexile does grow by plus 35 points, then they can visit the store.” P4 added a similar response when she said, “For the majority of the students, they, I believe they are more excited about, what incentive I can earn if I pass this on the first try?” P1 and P4 appreciated the rewards system that Achieve3000 uses to reward students for their accomplishments. School administrators rewarded high achievers with incentives to continue to earn high scores.

Four of the six participants mentioned an appreciation for the accountability system and the incentives which keep students engaged. P4 expressed her belief when she said, “We [Third-grade reading teachers] saw it increase because they want that immediate feedback. They want that to be able to see themselves being successful, so I think incentives is what motivates them.” P1 stated, “They definitely like the incentive to use it. Now, there are some students who are just great readers and they can go in there and find an article based on a topic they like, so those kids love it.” Furthermore, P2

stated, “One aspect of the program the kids do like, they like being the top scorer. They like that part of the program. They just like saying, Oh, I’m the top scorer for my grade.” P6replied, “They like going into other aspects of the program to earn points and I’m the top scorer!” Students have made the connection with earning high scores and the incentives associated with them. Readers aimed to pass the questions after each Achieve3000 article on the first attempt. Making a goal to pass on the first attempt is a behavior that can be translated to the effort put into earning high scores on the FSA. According to the teachers, earning the top score has become a goal for many students whom use Achieve3000. Taking this attitude into the FSA will lead to the same desire to earn high scores.

The teachers believed Achieve3000 promoted excitement towards reading and increased student engagement. P6 believed a higher rate of exposure and practice with Achieve3000 increased student engagement and mastery of skills. The participants also witnessed the students’ ability to earn Achieve3000 rewards, based on their scores, and increased student engagement. Finally, the participants believed this promoted excitement towards Achieve3000 and the reading lessons.

Theme 3: Delivers Ease of Use

Most teachers appreciated the practicality of achieve3000 for themselves and their students. They believed a benefit of the program is its ability to individualize activities for students or specific skills. Additionally, the teachers also reported the accessibility of the programs content was easy to use and locate. Further explanation of these subthemes is indicated below.

Produces personalized activities and questions. Most teachers said the program helped with improving student literacy and comprehension skills. P6 believed Achieve3000 was a beneficial source of computer-assisted instruction for her third-grade readers. P6 said, “Achieve is a really amazing program because it offers the varied reading levels, the Lexile levels, for the student.

P3 and P6 spoke about how they liked having various options to choose from.” P3 offered her viewpoint, saying, “The student gets to choose which passage they would like to read, so it’s not just one standardized passage per student. So, it’s personalized as well, because each student has different levels.” She believed Achieve3000 assisted her primary teacher-led instruction and allowed her to provide more individualized support for her struggling readers. P3 also said, “Even though they’re sitting at the same area, even though they’re using the program, they are reading different passages based off of their particular level.” These two participants appreciated the varying reading levels that Achieve3000 can assist. Readers had the ability to choose which article they read so they can browse any of the topics they might be interested in that day.

P1 and P3 suggested that Achieve3000 gives the student a sense of confidence in reading non-fiction text. P1 said, “We use Achieve3000 during blended learning. It is a center during our center time differentiated learning time. The students are able to get on to the computers and do their Achieve lessons.” One participant, P3, indicated the need for more training but was a first-year teacher new to using the program. P3 said, “Well, I think, just going back to the tutorial, just adding that tutorial to help the students be able to figure out where they’re going wrong with answering those questions.”

The majority of participants liked using Achieve3000 in their third-grade reading classes because Achieve3000 to improve students' overall reading ability in a manner they could understand. The finding was that the Achieve3000 differentiates instruction for students by providing specific lessons and tutorials based on the students' Lexile level and progress. Further, this finding described how the teachers altered their instruction to support the range of Achieve3000 lessons. During the individual interviews and focus group interview, participants mentioned how Achieve3000 assisted them in providing individual assistance when needed. The participants believed Achieve3000 time was great for personally assisting students in need.

All participants believed that Achieve3000 was successful in meeting the needs of readers, individually. They also valued the capability to choose specific Achieve3000 articles and activities for their students. Furthermore, teachers valued the capability to remediate reading skills or challenge students as needed.

Utilizes user friendly interface. Each of the participants appreciated how Achieve3000 utilized engaging articles, pictures, and the general engagement of their students. One participant, Dawn, said the students were engaged in the program. P6 said,

So, I think it is very user friendly. I think the kid-friendly visual approach that they take, because it is very, very fun. Like when the kids get on, it looks fun.

The images are great. The pictures, you know, are like today there was an article on, like earthworms. And, like, there were these nice, gooey worms on like the homepage.

Each of the participants also believed that it was easy for students to navigate and move throughout Achieve3000. There was a belief among all of the participants that Achieve3000 was user friendly, engaged students, and helped keep them motivated when it comes to reading. Achieve3000 allowed teachers to include what they are teaching in class to assist their students with understanding topics. Achieve3000 was appealing and user friendly to all participants; this helps to create an environment that is inviting and gives readers an opportunity to improve their reading through interactive approaches.

Four of the six participants said the program has been able to engage most students, even the low-performing readers, and students generally “really like it,” “enjoy it,” or “love it.” P6 spoke about one of the reasons why she believed her students have a positive view of Achieve3000. She said, “I think it looks very visually appealing, and I think the content and the variety in the articles is really good, and obviously the Lexile differentiation is huge.” P6 also believed Achieve3000 was an effective resource to differentiate lessons for individual students through an engaging and interactive platform. Four of the six participants shared why they believe their students enjoy using Achieve3000. These participants believed that one of the reasons the students liked using Achieve3000 was because it is visually appealing and has good variety of articles to choose from. P1 added why she liked Achieve3000 as a teacher. P1 said,

So as a teacher I like using that because it allows me to use different tools but it also, I can maybe it gives me short passages to introduce it to the student, and that’s what I really like about Achieve3000.

P5 spoke about how she appreciated the program but wanted to share that enhancements could be made to improve the experience. P5 shared, “Every part of the program is not perfect, but I can find what I need from it.” These two participants spoke about their appreciation for Achieve3000’s introductory passages. This helps build confidence so that the reader by making sure they understand the assignment. Each of the participants believed that Achieve300 can be improved but they all felt that there were adequate tools to help their students prepare for the FSA.

Five of the six participants offered recommendations for using Achieve3000 to prepare third-grade readers for the FSA and to improve their overall reading ability. All of the participants believed it was imperative to assign specific lessons based on individual student needs. Three of the six participants also spoke about how they found it was beneficial to assign lessons based on career readiness for their advanced students.

P2 stated, “I would like a tutorial. Just like with the other program. They have a tutorial to guide them through answering the questions. It’s all on us to provide them with that, and if we can have the time to really model that for them.” P3 said, “If teachers had more training to use the, once a month, they’re called FSA Challenge Lessons. If teachers had more training on how to teach with those articles, because the program does provide them, but you don’t know.” Two of the participants shared a belief that having tutorials for teachers that will help as much as they will for students. Half of the participants spoke about how there are some readers who need assistance with understanding the questions at first and having functionality to guide those low-level readers will help them to improve.

Theme 4: Creates Varying Results for Struggling and Advanced Readers

Under this overarching theme, the teachers reported variability in Achieve3000's accessibility with their lower performing students. Most teachers stated that some of the programs' content may be too advanced for their significantly low-performing students and they needed to further differentiate the content for those students. Further explanation of this subtheme is reported below.

May not align with lower students. Working with low level readers takes time because even though the articles students are presented which are considered easier, they are a challenge for them. Struggling readers have difficulty reading the easier articles because their basic skills are weak from the beginning. While the majority of the participants said Achieve3000 had a positive impact on students, some said that their students did not make as much progress in the program as they would have liked. These four participants went on to express their belief that Achieve3000 may not have been effective for students with low reading levels. P4 stated,

If my [the student] Lexile level is extremely low, Achieve3000 only goes to 150, that's the lowest, so if I am a struggling reader, no matter how low you put it, I will still struggle with this informational text, so it does not really account for what to do if I'm truly a struggling reader.

In addition, P2 stated,

It doesn't really provide a tutorial as other programs do as far as how to practice answering those questions. They pretty much just get an article and respond to those questions, and when you struggle, when students are struggling, even

though it provides them their level set, some students still struggle with the questions.

These two participants spoke specifically about Achieve3000's boundaries. Struggling readers who score below 150 Lexile will have a hard time catching up to the minimum score offered by Achieve3000. Students who struggle to read also struggle to comprehend the questions after the reading which can result in an incorrect response. All of the participants believed that tutorials for low level readers may help them catch up to district standards. Each of the participants felt that students benefit from learning strategies on how to approach answering the questions. This will help them be prepared for understanding the questions presented on the FSA. All of the participants noticed that struggling readers continued to have difficulty, and this can be an indication of how they will perform on the FSA.

Five out of the six participants pointed out that students who read on lower levels particularly had a hard time using the program independently and may not have as much growth as students with average or high reading levels. P6said,

It would be interesting if there could be some modification, and I don't know what that exactly would look like, but for our struggling readers. I mean, obviously, they are adjusting the Lexile levels so that it is matching each child. Maybe they could even adjust the way the, I don't know, it's highlighting a portion. Like, you need to go back to this portion of find answers for question 1. Not necessarily giving it away but helping them to see, oh, I have to go back in the text, and this would be the area I need to re-read; something along those lines.

P2 shared a similar view, as she stated,

Going back to having a tutorial for them, just to walk them through what, how you should respond, how you should refer back to the text when you're trying to locate answers, what would be some strategies that you could actually use.

When it comes to helping struggling readers, three of the six participants spoke about having more accommodations for them. When it comes to Achieve3000, Lexile levels match each student but only if they are above 150. These participants agreed that tutorials would help readers learn how to navigate the text to locate answers.

Challenges advanced readers. While most participants appreciated the differentiated reading levels and Achieve3000's ability to meet the needs of all students, some participants found the program too difficult for low-level readers and in some cases even high-level readers. For low-level readers, one participant reported that low-level students were frustrated because they were not able to earn 755 or higher no matter how hard they tried. P2 spoke about how students who perform below grade level are challenged due to the fact that the Achieve3000 articles are informational. She stated, "The reading, with the ones that are performing below grade level expectations. The reading, because it's all informational text, sometimes that could be a challenge for them." It is not evident from analyzing the responses whether Achieve3000 has actually changed the way students feel about reading. However, there appears to be consensus on the individual adjustments for struggling readers, as it seems to build confidence for them, after completing lower reading texts.

A couple of participants commented on how some of the articles are too complex for even their high-level students. Two of the six participants spoke about their students having a hard time completing as many assignments due to the complexity of some of the articles. P1 stated,

How difficult it can get for them. So, like, I have a student for example who for third grade scored at an 860 Lexile. That is like almost 4th grade, going into 5th, but he is 3rd grade. So, when he is reading the text, and he is trying to do his daily activities, that can become difficult and challenging for him because it's too much, it's overwhelming.

Most participant responses indicated that those students who are fluent readers and have developed an intrinsic desire to read seem to thrive with Achieve3000. These readers usually do not express a dislike for the program. P1 stated, "I think struggling readers in third grade don't like the program because if they're constantly failing it, they immediately say, I hate Achieve. I don't like it. If students are successful, then they like it." P4 also shared,

We were heavily on I-Ready, but for the intermediate grades, they want us to sort of focus more on Achieve, so now there's just a balance of if there's kids that need I-Ready, go for it, but we need to be at least go through two to three articles per week per child.

None of the participants made mention that readers complain about utilizing Achieve3000, but they knew that the students did not like failing by the anecdotal

samples above. School administrators work to find ways to balance Achieve3000 along with the other classroom activates.

Participant responses indicated that Achieve3000 was only one measure to indicate improvement and multiple measures should be considered. P5 stated, “So, it doesn’t really give you a true picture of that child’s comprehension. It’s really just an assessment of their comprehension on nonfiction text, not the big picture.” Thus, P5 believed that Achieve3000 lacked the capability to address student comprehension; however, she believed Achieve3000 did differentiate to meet students’ instructional needs. P5 indicated an adjustment in the connection to students’ Lexile scores would afford the opportunity for advancement in the efficacy of Achieve3000. All of the participants believed that Achieve3000 only measures non-fiction and therefore only provide a piece of the puzzle. Each of the participants believed that exposing students to more than non-fiction texts will better prepare student to perform well on FSA.

Summary

The two research questions from this study which investigated this this topic utilized several forms of data including individual interviews, a focus group interview, and the journal of the researcher. In summary, this study revealed that teachers believed Achieve3000 was a valuable tool in preparing third-grade readers for the Florida Standards Assessment in English Language Arts. Moreover, this study revealed that teachers believed Achieve3000 was an advantageous tool to improve students’ overall reading ability. Lastly, this research study revealed that participants believed the

application of Achieve3000 positively impacted their ability to meet individual student needs within their third-grade reading classrooms.

The finding for the first research question was that participants believed Achieve3000 was an effective resource for meeting the needs of individual students. The teachers believed that Achieve3000 included the capability to provide instruction for students of varying ability levels and to satisfy various learning styles. Markedly, teachers were able to provide assignments for each of their students based on their various reading level. These findings represent the participant's belief that Achieve3000 prepares readers for the English Language Arts subsection of the FSA.

The finding for the second research question was that participants believed that Achieve3000 was a fun and helpful way for students to learn third-grade reading. The participants also reported the excitement that students display towards Achieve3000 games and the opportunity to earn incentives by answering test questions correctly on the first attempt. Moreover, participants believed that Achieve3000 differentiates instruction for students by providing lessons and tutorials based on the students' Lexile Level and progress. The participants believed Achieve3000 was a valuable supplemental resource to their primary instruction which helped to improve students' overall reading ability. The findings for this study are discussed in greater detail in the subsequent interpretations of findings section. In this chapter, I also report the limitations of the study, recommendations for future research, implications for social change, and conclusion to the study.

After several examinations of the data from questions one and two it is probable that the researcher could conclude that all of the participants welcomed the use of the Achieve3000 in their classrooms. From the data, there was sufficient evidence for the researcher to conclude that each of the participants have positive views and opinions about whether or not Achieve3000 is an effective tool to prepare third-grade readers for the FSA in English Language Arts. Furthermore, there is sufficient evidence for the researcher to conclude that all of the participants have positive views and opinions about Achieve3000 and its ability to improve students' overall reading ability and prepare their students for the FSA.

Chapter 5 contains an introduction, which restates the purpose and nature of the study, an interpretation of the findings relating to the review of literature as well as the conceptual framework of the study. Furthermore, chapter 5 includes a discussion of the limitations and recommendations for future research, and implications for social change. Last but not least, chapter 5 consists of the conclusion, which reports the significance of the study.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of this basic qualitative study was to investigate if the diagnostic program, Achieve3000, could be considered a reliable method of differentiating instruction and providing intervention for reading deficits as it relates to the English Language Arts subsection of the Florida Standards Assessment. Furthermore, the study also focused on finding out the significance of alternative forms of reading instruction by examining how differentiating software is viewed among the key stakeholders, teachers. In the framework and methods synthesis within Chapter 2, it was reported that other studies have been conducted via quantitative, qualitative, and mixed-methods research designs on differentiated instruction. However, few qualitative studies were found on differentiated instruction as a tool in third-grade reading classrooms.

The research questions in this study were analytical in nature and were structured as such to explore third-grade reading teachers' views on a remedial reading intervention's influence on their students' reading proficiency and preparedness for a standardized English Language Arts exam. In addition, the Tomlinson's theory of differentiated instruction was the most common theoretical lens derived from the framework and methods synthesis within Chapter 2. Furthermore, in the findings of this study, I present teachers' views and opinions of differentiated instruction software through the lens of Tomlinson's theory of differentiated instruction. Lastly, I discuss how Tomlinson's theory was used to interpret the data for this study within the subsequent section.

Interpretation of the Findings

The findings for this study were interpreted through the lens of differentiated instruction as well as social validity and informed by the literature review. Tomlinson's (2008) differentiated instruction theory describes the importance of matching learner interests, preferred learning style, and readiness that he or she demonstrates in an effort to ensure how and what they learn. The social validity framework (Schuler, 1993; Wolf, 1978) refers to the social significance of intervention goals. By assessing social validity, educational leaders are able to enhance and improve interventions with positive outcomes. Therefore, differentiated instruction and social validity worked well for data analysis and interpretation within this study.

The subsequent sections outline the overall interpretation based on these two conceptual frameworks, followed by future directions of related research. First, I present the interpretation of the findings for the first research question. Then, I present the interpretation of the findings for the second research question. The findings for both research questions include a synthesis of those findings.

Third-grade Reading Teacher Views of Achieve3000 for Standardized Testing

The key findings that emerged from the first research question were related to Achieve3000 that provides objective data, aligns with FSA, offers additional benefits, and functions as expected. The first key finding indicated that Achieve3000 provides objective data. Related to the fact that Achieve3000 provides objective data it emerged that is useful for instructional planning. Under this finding, the overall consensus was that Achieve3000's ability to provide objective and quantifiable data was useful in

instructional planning. This goes along well with Tomlinson's (2017) position of differentiated instructional programs being valuable in progress monitoring and measurement through the use of assessment-based activities that generate the student's ability level, learning profile, and weaknesses. This afforded teachers the opportunity to set goals for their students, based on objective and quantitative data. The objective data provided by this computer-based program also aligns with Ismaji and Imami-Morina (2018) and their findings on the benefits of technology-based interventions; specifically, their focus on literacy in relation to tablet and computer-based practices. Computer-programs have a more accessible record of objective data for teacher to collect and review at a quicker rate than the traditional paper-pencil methods of measurement.

The second key finding indicated that Achieve3000 aligns with FSA. Research on standardized testing has found consistent challenges in finding methods to effectively assess standard proficiencies. Specifically, Erbilgin (2019) and Fitchett et al. (2014) discovered that, since the inception of NCLB, teachers have begun narrowing their curriculum to the basics in order to focus on state standards and align their lessons to the content on standardized assessments. With that said, the teacher participants in my study found that Achieve3000 aligns with the Florida Standardized Assessment (FSA) in relation to the content presented and the proficiency levels provided. This ambition to align reading interventions with FSA content was a district-wide decision to help improve their overall academic standing and AYP. Just as in Jones' (2018) and Northrop and Kelly (2018) findings, districts being held accountable for their results encouraged them

to find alternative ways to intervene and invest in programs that will improve their student reading proficiency.

The third key indicated that Achieve3000 offers additional benefits. These benefits include parental access and individualized lessons for students and were found to reinforce the teachers' reading instruction in school. Cennamo et al. (2012), Goodard et al., (2015), and Wright (2015) support this notion through their findings that struggling readers improve their proficiency through differentiation due to being presented with alternate activities and variation in their instruction; this can allow for generalization of skills.

The fourth key finding indicated that Achieve3000 functions as expected. The participants in this study reported that Achieve3000 changed, met, and/or exceeded their expectations. The teacher participants' perspective are reflections similar to Bailey and Williams-Black's (2008) and Suprayogi et al., (2017) early findings of the importance of teacher buy-in and understanding of the differentiated instruction resources. This was also supported by Dijkstra et al., (2017) and Smith and Westberg (2011) in their investigation on the initial opinions of differentiated instruction by teachers and administrators. However, as Dixon et al. (2014) and Roose et al., (2019) discovered, once teachers get a clear understanding of differentiation, they began to embrace the practices and employ the interventions with greater fidelity. Dixon et al. also found that positive student outcomes perpetuated teacher uses of differentiated instruction to a greater degree.

Third-grade Reading Teacher Perception of Achieve3000 to Improve Overall

Reading

The remaining four key findings that emerged from the second research question were related to Achieve3000 and that it improves overall reading, encourages excitement about reading, delivers ease of use, and creates varying results for struggling and advance readers. The fifth key finding indicated that Achieve3000 improves overall reading. The ultimate goal of educational instruction is to increase overall educational proficiency. Specifically, for the teacher participants in my study, their primary goal was to improve their students' overall reading ability. This was a recurring theme throughout the interview and focus group conversations. As for Achieve3000, the teachers reported an overall improvement in their students' reading proficiency and associate this to the computer-based program. Aligned with existing literature, this improvement in reading by way of differentiated instruction is a universal outcome. Bailey and Williams-Black (2008), Booth et al. (2013), Chamberlin and Powers (2010), Siegle (2014), and Suprayogi et al., (2017) all reported consistent findings on the positive impact differentiation had on students' reading ability; both individually and collectively.

The sixth key finding-indicated that Achieve3000 encourages excitement about reading. Within this theme, the majority of the teachers noticed an increase in their students' excitement for reading and engagement in the program. Orlich et al. (2012) and Tricarico and Yendol-Hoppey (2012) found similar support in their review of differentiated instruction practices. They discovered that when interventions are geared towards the students' interests and learning profiles, they were more likely to promote

student engagement, which in turn improved student performance. Zimmerman and Kitsantas (2014) supported this concept, indicating the correlation between student effort and achievement.

The seventh key finding indicated that Achieve3000 delivers ease of use. The teacher participants reported an overall ease of use for Achieve3000, as it was easily adaptable to their instructional curriculum. Consistent with the literature, the initial response to differentiated instruction software was that of resistance and apprehension, on behalf of the teachers. Abdulwahed et al, (2019), Han (2015), Logan (2011), and Von Hover et al. (2011) reported teachers' beliefs about differentiated instruction often prevented them from embracing the practices; which impacted the fidelity of the intervention. However, once buy-in was achieved and teachers were able to become more familiar with the intervention, they began to incorporate it into their instructional practices at greater rates. Many of the teacher participant reported Achieve3000 being user friendly for themselves and their students. The majority of them were also able to tailor the students' profile for their individual needs, which made it easier for them to adapt to the classroom. With this ease of use, the teachers were more willing to utilize the program as intended.

The eighth key finding indicated that Achieve3000 creates varying results for struggling and advance readers. A surprising finding is that Achieve3000 did not present consistent progress for varying levels of students. According to previous literature, differentiated instruction was originally designed to accommodate and integrate students identified as talented and gifted (Birnie, 2015; Connor et al., 2013; and Mills et al.,

2014); however, upon increased use of the practices, it was discovered that differentiation was also useful for low performing students and those students performing averagely (Blecker and Boakes 2010; Heacox, 2012; Kanevsky, 2011; and Santamaria 2009). The association between extant literature and the comments of the present study's teacher participants demonstrates that there is not a universal practice or result of differentiated instruction. As stated previously, an overall consensus of the teacher participants was that Achieve3000 is useful and efficacious as it relates to reading instruction and remediation; however, there was variation in the result the high and low achievers presented – this is consistent with the variability of differentiated instruction.

Limitations of the Study

Three limitations were identified as a result of the research design for this study. The first limitation is due to only involving third-grade reading teachers within the same school district. The participants in this study included six third-grade reading teachers in an urban school district. Therefore, the findings for this study may not be representative of all third-grade reading teachers in the Southeastern United States.

The second limitation relates to the focus on preparedness of testing and not actually testing performance. Therefore, the findings of this study only describe the views and opinions of the participants. This research study could be improved by including test performance in the data collection and analysis as a method of objectively examining student performance related to the use of Achieve3000.

The third limitation is related to the varying levels of exposure to technology and how it played a part in the views of those who use it. Participants spoke about the ability

students have to access and utilize Achieve3000 away from the classroom via home computers or laptops. This study could have been strengthened by including student views and opinions considering they can offer data relating to those whom the software was designed for.

Recommendations for Future Research

The recommendations for future research are based on the strengths, limitations, findings, and literature review for this study. The first recommendation is that future research should replicate this study towards the end of the school and include a larger sample of participants from more than three elementary schools. The items listed within the first recommendation could provide better understanding of how teachers use Achieve3000 to prepare their students for the English Language Arts subsection of the FSA. Furthermore, these items may help educators determine if Achieve3000 was actually successful in improving student reading performance. This is because the results of the standardized tests will be received by then.

The second recommendation is to replicate this study in rural schools. This study was conducted at three low socioeconomic status schools in an urban area. Some of the students that are taught by the participants for this study may have limited access to technology at home. Therefore, their views and opinions could be guided by lack of exposure to such technology. Participants whose students have a higher rate of exposure to technology may report different levels of engagement and excitement towards using Achieve3000.

The third recommendation is to explore the teacher views and opinions of other computerized differentiated software as a tool to prepare students for the reading language arts portion of the FSA. Utilizing a different differentiated instructional software program as the vehicle for the study. Achieve3000 was used as the vehicle for this study. Therefore, participant views and opinions were guided by their specific experiences with Achieve3000. The participants reported both positive and negative perceptions towards Achieve3000 due to literary text incorporated in the program. Therefore, conducting a study using a different differentiated reading software would be valuable.

Implications

The results from this study provide several contributions to positive social change. The first contribution is the advancement to the profession of educational technology by revealing teacher views and opinions of utilizing technology to help prepare students for standardized tests, such as the FSA. The findings for this study expand the understanding and relevance of differentiated instruction and social validity. This study also advances the profession of educational technology by reporting recommendations from third-grade reading teachers about how differentiated reading software can be improved to better prepare third-grade students for standardized tests. The findings for this study yielded third-grade reading teacher views and opinions that described the importance of role of the differentiated instructional software while students are working to prepare for standardized tests.

The second contribution of this study to positive social change is to provide teachers with an increased repertoire of instructional tools to assist them in meeting the needs of all learners. Struggling students are able to receive a variety of modes of instruction via Achieve3000 activities, lessons, and tutorials to build their reading proficiency. Increasing interaction between students and software such as Achieve3000 could promote positive learning experiences. This could ultimately increase student reading achievement and assist in overcoming the national reading achievement deficit.

The third contribution of this study to positive social change is to prepare students for a technology driven world. Computers are ever present in all aspects of life. Students will be required to work with computers in most careers, online courses, and/or daily activities. This study explored teacher views and opinions of using differentiated reading software to learn new information. Further, this study provided the opportunity for teachers to have a voice in improving the use of differentiated reading software. Therefore, this study assists in improving teacher and student experiences with utilizing differentiated instruction software for the purpose of standardized testing and improving overall reading abilities.

Conclusion

The purpose of this basic qualitative study was to investigate if the diagnostic program, Achieve3000, could be considered a reliable method of differentiating instruction and providing intervention for reading deficits as it relates to the English Language Arts subsection of the Florida Standards Assessment. The results from this study add to the literature of educational technology about how teachers can improve the

use of differentiated instruction software to meet the needs of all learners. This study revealed that participants believed that differentiated instructional software, such as Achieve3000, supported the differentiated instruction for individual students within six third-grade reading classrooms. Furthermore, this study revealed that participants believed Achieve3000 increased student engagement and excitement towards reading. However, the results of this study were limited to three schools with a small urban sample of third-grade reading teachers as participants. Therefore, the results of this study may not reflect the perceptions of third-grade reading teachers in different settings.

This study expands the understanding and relevance of differentiated instruction. Differentiated instructional software has the ability to change student attitudes toward learning to read as well as increase student engagement. It is my belief that differentiated instructional software presents the ability to enhance the field of educational technology, schools, and the learning experience of all students.

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Appendix A: Teacher Interview Questions

Purpose: To put the Achieve3000 experience in context.

1. Describe to me what took place before the district made the decision to purchase Achieve3000?
2. What are the advantages and disadvantages of using Achieve3000 as a tool to prepare for the reading portion of the Florida Standards Assessment?
3. Tell me how Achieve3000 is used in your reading class.
4. How does Achieve3000 help third-grade student improve their reading proficiency? If yes, how did the use of Achieve3000 improve your student's learning in regard to reading proficiency? If not, please explain why.
5. Tell me what you like the best when it comes to Achieve3000.
6. What do you feel are biggest strengths of Achieve3000?

Purpose: To gather details of the Achieve3000 school experience.

7. Tell me what students like the least when it comes to Achieve3000.
8. What do you feel are the biggest weaknesses of Achieve3000?
9. If you were able to change anything about Achieve3000 what would you change?
10. How have your initial perceptions of Achieve3000 changed in comparison to your current thoughts?
11. How has Achieve3000 impacted your students' reading proficiency?

Purpose: To reflect on the Achieve3000 school experience.

12. Do you have anything else that you would want to tell me about your experience with Achieve3000? If so, please explain.

Appendix B: Teacher Focus Group Interview Questions

Purpose: To put the Achieve3000 experience in context.

1. Describe to me what took place before the district made the decision to purchase Achieve3000?
2. What are the advantages and disadvantages of using Achieve3000 as a tool to prepare for the reading portion of the Florida Standards Assessment?
3. Tell me how Achieve3000 is used in your reading class.
4. How does Achieve3000 help third-grade student improve their reading proficiency? If yes, how did the use of Achieve3000 improve your student's learning in regard to reading proficiency? If not, please explain why.
5. Tell me what you like the best when it comes to Achieve3000.
6. What do you feel are biggest strengths of Achieve3000?

Purpose: To gather details of the Achieve3000 school experience.

7. Tell me what students like the least when it comes to Achieve3000.
8. What do you feel are the biggest weaknesses of Achieve3000?
9. If you were able to change anything about Achieve3000 what would you change?
10. How have your initial perceptions of Achieve3000 changed in comparison to your current thoughts?
11. How has Achieve3000 impacted your students' reading proficiency?

Purpose: To reflect on the Achieve3000 school experience.

Do you have anything else that you would want to tell me about your experience with Achieve3000? If so, please explain.

Appendix C: Letter to Principals

Dear Principal:

My name is Ennis Brinson. I am currently pursuing my doctorate through Walden University. As a doctoral student, it is my desire to investigate the attitudes and opinions of third-grade reading teacher on the use of reading software in preparation for the Florida Standards Assessment Test.

At this time, I am requesting permission to send your teachers information introducing my research topic and invite to the teachers to participate in the research by first completing a consent form and agreeing to participate in the research and secondly by completing a survey that will be available to them. The goal of the research study is to obtain information that will assist in answering the following research questions:

1. What are the third grade reading teachers' views of using Achieve3000 as a tool in preparation for the Florida Standards Assessment in English Language Arts?
2. How do third grade reading teachers view the use of Achieve3000 as a tool to improve their students' reading ability?

The study aims to identify the attitudes and opinions of third-grade teachers in regard to the newly implemented Achieve3000 reading software at a suburban community Elementary School located in the northeast Florida. Knowing the purpose of Achieve3000 learning program, the results of this study intend to discover if this program assists students in acquiring and learning reading skills.

I am the sole researcher in this project and will be the only one contacting the teacher or yourself about this study. Teacher participation is voluntary, and their identity will be anonymous. Teachers will not be identified in this dissertation by name.

If you have any questions concerning my request, please do not hesitate to contact me at ennis.brinson@waldenu.edu. Thank you for considering my request.

Sincerely,

Ennis Brinson
PO Box 2046
Tallahassee FL 32304
ennis.brinson@waldenu.edu

Appendix D: Teacher Invitation Letter

XX/XX/2018

Hello, teacher name will go here

My name is Ennis Brinson and I am a doctoral candidate in educational technology at Walden University. I am conducting a research study as part of the requirements of my degree in educational technology, and I would like to invite you to participate in this study.

I am interested in exploring third-grade reading teachers' views on Achieve3000 as a tool for improving reading proficiency and preparedness for the Florida State Standards English Language Arts assessment. I am inviting you to participate in this research because you currently teach a third-grade reading class that uses Achieve3000 software. (Principal Name will go here), principal of (school name will go here) Elementary, provided your contact information.

Please read the attached teacher consent form carefully because the procedures for participation are explained. If you have any questions about the study, you may contact me at ennis.brinson@waldenu.edu.

If you would like to participate in this study, send a reply email to me directly at christopher.cannon@waldenu.edu stating the words, "I consent."

Respectfully,
Ennis Brinson
Walden University
Ph.D. Doctoral Candidate