Meeting and Exceeding Expected Growth in EVAAS: A Study of the Strategies Used by K-2 Reading Teachers

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MEETING AND EXCEEDING EXPECTED GROWTH IN EVAAS: A STUDY OF THE STRATEGIES USED BY K-2 READING TEACHERS

By
Dia Collins Thomas

A Dissertation Submitted to the
Gardner-Webb University School of Education
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Education

Gardner-Webb University
2020
# Approval Page

This dissertation was submitted by Dia Collins Thomas under the direction of the persons listed below. It was submitted to the Gardner-Webb University School of Education and approved in partial fulfillment of the requirements for the degree of Doctor of Education at Gardner-Webb University.

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I am filled with emotions as I write this acknowledgement, as I realize this dissertation is finished. Patience and perseverance have paid off. First and foremost, I want to thank our loving God. He knows the plan He has for us, and attending Gardner-Webb University for my executive leadership degree as well as my doctoral degree was all a part of the plan He had for me. I want to thank the faculty and staff of Gardner-Webb University for the high expectations you hold for your students, as your high expectations make us better scholars.

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Abstract


This is a mixed methods study that explored instructional reading strategies that were used by kindergarten, first-, and second-grade teachers who met and/or exceeded expected growth in EVAAS from 2017-2019. Research by John Hattie, Douglas Fisher, Nancy Frey, and Robert Marzano are included in the literature review of this study. Data were collected through the use of a survey and interviews. There were a total of 15 K-2 teachers who completed the survey and 2 of them agreed to participate in the interviews. Findings from the surveys revealed goal setting, vocabulary instruction, and blended learning as three strategies commonly used by teachers meeting and exceeding expected growth in EVAAS. Blended learning included digital reading programs such as Zearn™, Moby Max™, Readworks®, Reading A-Z™, Accelerated Reader™, Tumblebooks, ConnectEd™, and i-Ready™. Findings from the interviews revealed 8 strategies for promoting growth. Those strategies were differentiated reading groups, the “Daily 5” literacy framework, learning targets, systematic phonics, using data to guide instruction, reading strategies, echo reading, and goal setting. The interviewees also identified some of the digital programs listed above and their instructional assistant as important resources for promoting student growth.

Keywords: reading strategies, kindergarten reading strategies, first-grade reading strategies, second-grade reading strategies, student growth, EVAAS, meeting growth, exceeding growth
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Chapter 1: Introduction

North Carolina has several different assessments that must be administered at the end of a school year for K-8 schools and/or at the end of a semester for 9-12 schools. Teachers responsible for administering these various assessments are expected to meet proficiency and growth with their students. Some teachers meet proficiency but not growth. Some teachers meet growth but not proficiency. Some teachers meet both, and some do not.

EVAAS® is an acronym for Education Value-Added Assessment System and is defined as a software system examining “the impact of teachers, schools, and districts on the learning of their students in specific courses, grades, and subjects” (“Educator effectiveness model: EVAAS®,” 2017, p. 1). Within EVAAS® there are three different categories of growth. A teacher can be identified as one who does not meet expected growth, meets expected growth, or exceeds expected growth. The North Carolina Department of Public Instruction defined student growth as, “the amount of academic progress that students make over the course of a grade or class” (“Educator effectiveness model: Student growth,” 2017, p. 1). Along those same lines, schools are also held accountable for growth, and their status is identified on their North Carolina state report card each year.

Statement and Overview of the Research Problem

Based on EVAAS® teacher effectiveness data in the state of North Carolina, not all teachers are meeting or exceeding growth each year with their students. During the 2014-2015 school year, of the 61,891 teachers receiving growth data, 17.6% or 10,895 of them did not meet expected growth (“North Carolina Educator Effectiveness Data,”
Lewis (2011) wrote, “effectiveness of the teacher may position a student for future success or failure” (p. 17). Additionally, not all schools are meeting growth. During the 2018-2019 school year, there were 2,523 public schools that participated in the state testing program, and 673 of them did not meet growth (North Carolina Department of Public Instruction, 2019a). As you will see below, this number is similar for the last few years of reporting data.

More Evidence that Lack of Student Growth Exists

Data discussed earlier stated that 10,895 teachers did not meet expected growth during the 2014-2015 school year. Data for the previous 2 school years show that this problem is a consistent problem. During the 2013-2014 school year, 6,524 teachers did not meet expected growth. There were 7,907 teachers not meeting expected growth during the 2012-2013 school year (“North Carolina Educator Effectiveness Data,” 2017).

After analyzing teaching effectiveness data for K-2 teachers, there were 2,864 not meeting expected growth during the 2018-2019 school year (North Carolina Department of Public Instruction, 2019b). Similarly, there were 3,111 not meeting growth during the 2017-2018 school year (North Carolina Department of Public Instruction, 2018b) and 3,128 not meeting growth during the 2016-2017 school year (North Carolina Department of Public Instruction, 2017b).

Schools are also expected to meet growth each year, and some are not. It was mentioned above that 673 schools did not meet growth during the 2018-2019 school year. Of those 673 schools not meeting growth, 253 of them were elementary schools (North Carolina Department of Public Instruction, 2019a). For the 2017-2018 school year, there were a total of 683 schools not meeting growth, and 266 of them were elementary (North
Carolina Department of Public Instruction, 2018a). Of 665 schools not meeting growth in 2016-2017, 241 of them were elementary (North Carolina Department of Public Instruction, 2017a); and of 663 schools not meeting growth during the 2015-2016 school year, 243 of them were elementary (North Carolina Department of Public Instruction, 2016). The 2014-2015 school year had 691 schools not meeting growth with 271 at the elementary level (North Carolina Department of Public Instruction, 2015). Last, the 2013-2014 school year had 615 schools not meeting growth (North Carolina Department of Public Instruction, 2014).

Possible Factors Related to Lack of Student Growth

There are several possible factors related to lack of student growth. Some teachers are not using their data appropriately, and/or they are not aware of effective teaching strategies (Keuning et al., 2017). Some teachers have to teach in overcrowded classrooms (Welsh et al., 2012). Some students’ home environments may not be the best for student achievement (Jensen, 2009; Welsh et al., 2012). Some students transfer/move from one school to another, and this hurts achievement (Voight et al., 2012). Teachers sometimes have disruptive student behavior in the classroom, and this affects student achievement for the disruptive student as well as others in the classroom (Hartman & Gresham, 2016; Johns, 2015). Some students do not have goals set for themselves, and having goals helps with achievement (Dotson, 2016). High teacher turnover is a factor identified as impacting student growth (Hanushek et al., 2016; Ronfeldt et al., 2013). The quality of teachers in schools can also impact student growth (Ingersoll, 2004; Lindell, 2016; Mangianti, 2011).

Using data appropriately and implementing strategies based on the data are
important in growing students. Keuning et al. (2017) conducted a study on data-based decision-making and stated, “Teachers may be perfectly capable of interpreting and analyzing data, but improved student outcomes are not likely to occur if they do not know how to change classroom practice based on the analyses” (p. 43). At the end of their study, Keuning et al. (2017) wrote that deliberately selecting strategies that meet the needs of students based on data is likely to improve student outcomes.

Overcrowded classrooms is another cause as it relates to teachers not meeting growth with their students. Welsh et al. (2012) conducted a study on overcrowded schools and the results of student achievement when newer schools were built to relieve the overcrowding. They analyzed changes at the elementary level as well as the high school level. They found that students at the elementary level who moved from an overcrowded school to attend a newer, less-crowded school experienced achievement growth in the less-crowded environments. Additionally, students who stayed behind at the school that became less crowded due to the newer school being built experienced achievement growth (Welsh et al., 2012).

The home environment of students is also an important factor in student achievement. Welsh et al. (2012) referenced achievement gains in Los Angeles and said that “higher achieving students often benefit from strong family support and other aspects of school quality that contribute to their achievement growth” (p. 2). Jensen (2009) wrote a book on academic achievement in relation to low socioeconomic statuses of students. He discussed the lives of poor children and how they “have fewer and less-supportive networks than their more affluent counterparts do; live in neighborhoods that are lower in social capital; and, as adolescents, are more likely to rely on peers than adults for social
and emotional support” (Jensen, 2009, p. 8). Poor children often come from one parent homes with fewer resources and less opportunities for enriching activities in comparison to children with more stable home lives (Jensen, 2009). Additionally, “poor children often feel isolated and unloved, feelings that kick off a downward spiral of unhappy life events, including poor academic performance, behavioral problems, dropping out of school, and drug abuse” (Jensen, 2009, p. 9).

Academic achievement is affected when students move from school to school and lack stability. Voight et al. (2012) studied mobility and its effects on academic achievement. They reviewed 2010 research from the National Research Council and Institute of Medicine and 2004 research by Mehana and Reynolds and wrote, “in elementary grades, changing schools has a negative effect on math and reading achievement equivalent to a 3- to 4-month disadvantage in learning” (p. 386). Voight et al. stated that mobility in Grades K-2 have the potential of setting “urban students back in terms of math and reading achievement at the earliest level of testing (third grade)” (p. 389). Voight et al. went on to explain that when these students get behind, it is harder to close that gap, and their third grade beginning-of-the-year achievement levels are lower than more stable students.

Disruptive behavior in the classroom is another factor contributing to lack of student growth. “Behavior impacts academic success, and academic success or the lack of it impacts behavior” (Johns, 2015, p. 1). Hartman and Gresham (2016) stated that disruptive behavior not only affects the achievement of all students in the classroom, but the behavior affects other students’ engagement and behavior as well.

Lack of goal setting with students is another possible cause of students not
growing academically. Dotson (2016) conducted a study in Kentucky referencing goal setting with elementary school students and whether goal setting helped them with their reading growth. The results of the study showed an overall “increase in the percentage of students making adequate growth after the goal setting strategy was implemented” (Dotson, 2016, p. 77). It is important to note that the students studied were fourth- and fifth-grade students. Dotson stated, “goal setting has proven effective at motivating students and increasing achievement for students of all ages, ability levels, and in differing content areas” (p. 85).

High teacher turnover in schools is another issue related to students not growing in their academic setting. Hanushek et al. (2016) studied teacher turnover and the impact it has on the quality of instruction in Texas. They discovered that sometimes when teachers leave schools, new teachers without experience are hired in their places. Additionally, sometimes teachers are moved to grades they have never taught before. Both of these conditions lend to a decrease in the quality of instruction. Ronfeldt et al. (2013) also studied the effects of teacher turnover on instruction and found a negative correlation between turnover and student achievement.

Ingersoll (2004) stated, “the quality of teachers and teaching are undoubtedly among the most important factors shaping the learning and growth of students” (p. 1). Lindell (2016) wrote, “teacher quality is the largest in-school factor that determines student achievement” (p. 195). Lindell also wrote that high-poverty schools do not have the same access to teacher quality as low-poverty schools and went on to discuss teacher quality as a resource that falls under Title VI of the Civil Rights Act of 1964. Lindell stated, “the U.S. Departments of Education and Justice should make more aggressive use
of Title VI to end unequal access to quality teachers” (p. 191). Mangiante (2011) wrote, “the varying condition of the quality of schools and their respective teachers based on the wealth of a community can impact the potential for student growth between schools” (p. 47).

Addressing the Problem

Lack of student growth is a result of various factors both in education and at home. Legislation and research have been provided to assist educators and school districts in their efforts to improve student growth and achievement.


In 1998, the Title II (Teacher Quality Enhancement Grants for States and Partnerships) legislation encouraged states to institute mandated teacher testing as part of initial state teacher certification. The No Child Left Behind (NCLB) Act of 2001 required a ‘highly qualified teacher’ in all classrooms and public reporting of teacher qualifications. (Buddin & Zamarro, 2009, p. 2)

After studying the relationship between characteristics of teachers and academic growth, Munoz and Chang (2007) also wrote about teacher quality. They wrote, “teacher quality is a complex matter” (Munoz & Chang, 2007, p. 157) and that it “is much larger than just education and years of experience” (Munoz & Chang, 2007, p. 157).

Research has also been conducted on instructional strategies that help student achievement. Dean et al. (2012) discussed nine instructional strategies that assist with student achievement. Some of these strategies are setting objectives and providing feedback, assigning homework for practice, identifying similarities and differences,
summarizing and note-taking, and nonlinguistic representations. Dean et al. (2012) included examples of how each of these strategies are used in a K-2 reading classroom.

Jensen (2009) conducted research to assist educators with high-poverty students. He studied high-poverty schools that were considered high performing with at least 50% of their students passing state standardized tests. He listed over 20 characteristics those high-poverty schools had in common and shared them with his readers. From that list of characteristics, he created five factors he believed were the most important and created an acronym for the factors. The acronym, SHARE, stands for “support of the whole child, hard data, accountability, relationship building, and enrichment mind-set” (Jensen, 2009, p. 69). He broke down the SHARE acronym for school level success and classroom level success (Jensen, 2009).

Johns (2015) researched strategies to assist teachers with behavior problems in classes where students are not academically successful. Johns’s book contains 15 chapters on positive behavior strategies, and she encouraged seeking parental input before using the strategies/interventions. Johns also encouraged collaboration with other teachers to determine which strategies/interventions are best for individual students. “Many of the strategies that we utilize to improve student behavior can be utilized to increase academic skills” (Johns, 2015, p. 149).

**Purpose of the Study**

There are teachers who have consistently met or exceeded expected growth in North Carolina. The purpose of this study was to understand the strategies those teachers used in their classroom and to determine how they met growth with their students. There was one research question that guided the focus for this study.
Research Question

What strategies are utilized by kindergarten, first-, and second-grade teachers whose data show consistent growth with their students?

This question was broken into two different parts:


b. What strategies did K-2 teachers meeting or exceeding growth say they utilized in their classrooms to show high levels of achievement during the 2016-2017, 2017-2018, and 2018-2019 school years as identified through interviews?

Significance of the Study

All teachers need to be able to meet growth with their students each year so students can experience academic success. Students come to us with different ability levels. Some are below grade level, some are on grade level, and some are above grade level. Based on their level upon entering a classroom, the teacher needs to know how to grow them academically. An article in the New York Times recently praised the Chicago Public Schools system and the progress their students are making. “Many predominantly minority districts where third graders start behind have high growth rates” (Badger & Quealy, 2017, p. 13). Students are capable of growing; and now that this study is complete and commonly used strategies have been identified, these strategies can be shared with teachers not meeting expected growth in an attempt to help them meet growth in the future. This study now contributes to the research on growth strategies for
K-2 reading.

**Setting of the Study**

This study looked at EVAAS® data for a small rural district, specifically the primary schools. When the study took place, the district had 13 schools. There were six primary/elementary schools, an early college, four middle schools, and two high schools. Teachers from five of the six primary/elementary schools were utilized in the study. Teachers from the sixth primary school were utilized as the pilot study since I was the principal of that school. Based on the 2018 North Carolina School Report Card, the small district averaged 20 teachers in their elementary schools. This study focused specifically on reading teachers in grades kindergarten through second grade and the instructional strategies used during their reading instruction.

The total number of K-2 teachers at the five schools that were utilized in the study vary for each school. School A had 11 K-2 teachers and, School B had seven K-2 teachers. Schools C, D, and E had three, 14, and six teachers respectively. That was a total of 41 K-2 teachers in the sample schools.

The district provided instructional assistants for most kindergarten and first-grade classes. School A had five instructional assistants who worked with the K-1 teachers. School B had two instructional assistants, and School C had one. Schools D and E had six and four instructional assistants respectively. This was a total of 18 instructional assistants in the sample K-2 classrooms.

**Methodology Overview**

This empirical mixed methods research study was both quantitative and qualitative in nature as surveys and interviews were utilized for data collection. Phase 1
of the study was the distribution of the surveys. Phase 2 of the study was the implementation of the interviews. The teacher sample was determined by the number of K-2 teachers who agreed to participate in the study. My goal was to have a research sample that would consist of up to 14 kindergarten teachers, 14 first-grade teachers, and 13 second-grade teachers.

Teachers who agreed to participate were provided a survey asking them to identify various instructional strategies used during their reading instruction. At the end of the survey, the participant had the opportunity to identify if they were willing to participate in the interview. The interview served as a follow-up with teacher participants to understand identified strategies in more detail, such as how often the strategy was implemented. Strategies used by teachers meeting and/or exceeding growth from 2017-2019 were compared to teachers not meeting growth to determine possible strategies that promote student growth.

**Delimitations and Limitations of the Study**

The delimitations of this study refer to the grade span of the teachers surveyed and interviewed. Only K-2 teachers in the small rural district were surveyed due to time constraints and accessibility. With the surveys and interviews only taking place in this one district, this was also a delimitation. This delimitation was noted in determining whether our sample size was representative of other districts in the state.

There were several limitations with this study. One limitation was the experience of the teachers surveyed and interviewed during this research. Another limitation was the willingness of teachers to complete the survey and participate in the interview process. My role as a principal at one of the primary schools in the district was also a limitation.
My principalship led to biases in the research and did not allow me to incorporate the K-2 teachers at my school in the study. One last limitation was how EVAAS® data were collected for kindergarten teachers. Their EVAAS® data were based on the middle-of-the-year assessments and end-of-the-year assessments. Beginning-of-the-year assessments were not taken into consideration for kindergarten teacher effectiveness data in EVAAS®.

**Definitions of Terms**

Listed below are terms used in this study that may be unfamiliar to some of the readers of this study. Some of the terms are defined earlier in this chapter as well.

**Proficiency**

Proficiency is a minimum achievement level students are expected to meet on state standardized tests and assessments (Lachlan-Hache & Castro, 2015).

**Growth**

Growth is “the amount of academic progress that students make over the course of a grade or class” (Educator effectiveness model: Student growth, 2017, p. 1).

**EVAAS®**

EVAAS® is an acronym for Education Value-Added Assessment System; software system examining “the impact of teachers, schools, and districts on the learning of their students in specific courses, grades, and subjects” (Educator effectiveness model: EVAAS®, 2017, p. 1).

**Consistently Met or Exceeded Expected Growth**

For the purposes of this study, teachers who consistently met or exceeded expected growth did so for 2 or 3 years during the 2016-2017, 2017-2018, and/or 2018-
2019 school years based on the NC EVAAS teacher effectiveness data.

**Data-Based Decision-Making**

Data-based decision-making is also known as data-driven decision-making. This refers to analyzing student achievement data to evaluate student progress, create individualized instruction/lessons, and develop/implement strategies for individual students to increase student academic success (Keuning et al., 2016).

**Summary**

Educators are expected to meet or exceed expected growth each year as it pertains to statewide assessment results. Unfortunately, not all educators succeed at meeting or exceeding growth with their students. The purpose of this study was to identify instructional strategies used by kindergarten, first-, and second-grade reading teachers who consistently met or exceeded growth with their students. Fisher et al. (2017) wrote, the “key to student growth is time--time for teachers to talk and evaluate their own practice and its impact on student learning” (p. 196). If teachers are not making an impact on student learning in K-2 reading, they now have a resource they can utilize to increase their impact and potentially meet and exceed expected growth in EVAAS®.
Chapter 2: Literature Review

Introduction and Restatement of the Problem

EVAAS® teacher effectiveness data show that not all teachers in North Carolina are meeting or exceeding growth each year with their students. Hattie (2009) believed that all students of every ethnicity and in every subject can receive effective teaching. Sanders (as cited in Hattie, 2009) referenced ineffective teachers when he wrote, “If anyone is serious about improving the academic achievement levels for all students, then this improvement will be obtained only by reducing the likelihood that students will be assigned to relatively ineffective teachers” (p. 118). This research identifies strategies that teachers use to successfully meet growth with their students so all students can have effective teachers.

“A teacher who honors the individual seeks to understand each student’s particular progression of needs and to address those needs in a way that leads to both personal and academic growth” (Tomlinson & Imbeau, 2010, p. 39). If teachers want their students to grow academically, they must know their students’ interests and readiness levels as well as understand their learning profiles and meet them at those levels (Tomlinson & Imbeau, 2010). If work given to a student is too easy for them, they cannot grow academically. Conversely, work that is too complicated has the same impact on student achievement (Tomlinson & Imbeau, 2010). Tomlinson and Imbeau (2010) referenced student learning and wrote, “working diligently and intelligently leads to growth” and “growth ultimately enables individuals to achieve and exceed most goals” (p. 63).

This chapter is a summary of the literature review referencing teaching strategies
that researchers claim increase student achievement in literacy. Strategies researched include goal setting, direct instruction, vocabulary instruction, phonics instruction, engagement, feedback, differentiation, comprehension instruction, reading interventions, cooperative learning, and data analysis. Three of these 12 strategies are discussed by Petty (2009). Petty referenced the theory of Abraham Maslow and how “students learn by challenging goals, by active learning, and by feedback on the extent to which their goals have been met” (p. 51). Similarly, Petty also referenced the work of John Hattie and his three principles on what works for achievement. “So what works is setting a challenging goal, getting students to work towards this and then giving them feedback on the extent to which they have met the goal” (Petty, 2009, p. 62).

Effect sizes are mentioned throughout this chapter as it pertains to various teaching strategies. John Hattie, Robert Marzano, and Debra Pickering discussed effect sizes in their works. Hattie (2009) provided his readers with effect sizes for various teaching strategies where the effect sizes relate to the impact on student achievement. Effect size is the scale Hattie chose to use as a way to “provide a common expression of the magnitude of study outcomes for many types of outcome variables” (p. 7). Hattie stated that an effect size of d=.20 to d=.40 is the average growth teachers can usually reach in a year. Hattie wrote that teachers “should be seeking greater than d=.40 for their achievement gains to be considered above average, and greater than d=.60 to be considered excellent” (p. 17). “John [Hattie] was able to demonstrate that influences, strategies, actions and so on with an effect size greater than 0.40 allow students to learn at an appropriate rate, meaning at least a year of growth for a year in school” (Fisher et al., 2017, p. 3).
Marzano and Pickering (2011) referenced effect sizes as a way to determine how powerful activities and strategies can be in the classroom. They said, “the larger the ES, the more the strategy increases student learning” (Marzano & Pickering, 2011, p. 9). Marzano and Pickering included a conversion chart of effect sizes to percentile gains as an appendix in *The Highly Engaged Classroom*. The conversion chart has effect sizes ranging from 0.01 to 1.99. An effect size of 0.50 has an expected percentile gain of 19 points, an effect size of 0.75 has an expected percentile gain of 27 points, and an effect size of 1.0 has an expected percentile gain of 34 points (Marzano & Pickering, 2011). An example is provided pertaining to strategies with an effect size of 0.50 and having a gain of 19 points so readers can better understand how the gain of 19 points relates to improvement. With the example given, “practitioners would predict students scoring at the fiftieth percentile on achievement tests to score at the sixty-ninth percentile” (Marzano & Pickering, 2011, p. 184), and this is after the strategy has been implemented.

Petty (2009) referenced effect sizes and wrote that they “put teaching methods and other factors that affect learning on the same scale, allowing us to compare their effectiveness” (p. 71). Petty also related effect sizes to grade increases and student achievement. Petty stated that teaching methods with effect sizes of 0.50 increase grades on the A level exams by one grade. A level exams are exams taken by secondary students in England. This means that their exam grade could increase from a C to a B. Teaching methods with effect sizes of 1.0 provide a two grade increase, from a C to an A, for example. Additionally, Petty went on to state that effect sizes of 1.0 can assist in advancing student achievement by 1 year.

In *Designing Literacy-Focused Schools* (2019), exemplary schools were studied,
and most of them used high yield instructional strategies in their schools. Seventeen top research-based strategies were identified in the book with effect sizes ranging from $d=1.61$ to $d=.50$. Higher order thinking was the top strategy with a 1.61 effect size, and scaffolding was the last strategy listed with an effect size of 0.50. There were eight strategies that “have been identified as high yield instructional practices for increasing teacher effectiveness and accelerating learning for all students, especially in literacy” (Designing Literacy-Focused Schools, 2019, p. 29). Higher order thinking remained the top strategy with a 1.61 effect size, and graphic organizers/concept maps was the last strategy listed with an effect size of 0.65.

The progression of literacy learning through the elementary years follows a spiral as students move from understanding the surface contours of a skill or concept toward an ever-deepening exploration of what lies beneath. But understanding these progressions requires that teachers consider the levels of learning they can expect from students. (Fisher et al., 2017, p. 13)

There are three phases of learning identified by Fisher et al. (2017). They are surface learning, deep learning, and transfer learning. With each of these phases, there are literacy strategies and approaches that are effective at each one of the different phases. Strategies listed under surface learning are wide reading/exposure to reading, phonics instruction, direct instruction, note-taking, comprehension programs, annotation/study skills, summarizing, leveraging prior knowledge/prior achievement, vocabulary instruction, repeated reading, and spaced practice. These strategies range in effect sizes from 0.42 for wide reading all the way to 0.71 for spaced practice. Strategies listed under deep learning are questioning, concept mapping, close reading/study skills, self-
questioning, metacognitive strategy instruction, reciprocal teaching, class discussion, and organizing and transforming notes. The effect sizes for these strategies range from 0.48 to 0.85. Last, strategies listed under transfer learning include extended writing/writing programs, peer tutoring, problem-solving teaching, synthesizing information across texts, formal discussions/debates/class discussions, transforming conceptual knowledge, organizing conceptual knowledge, and identifying similarities and differences. The effect sizes for these strategies range from 0.44 to 1.32. Cooperative learning is a strategy identified under both deep learning and transfer learning with an effect size of 0.59.

There are four strategies and approaches that fall under all three phases of learning: expectations of the teacher with an effect size of 0.43; teacher clarity and feedback, both with an effect size of 0.75; and student expectations of self with an effect size of 1.44 (Fisher et al., 2017, p. 15, Figure 1.2). All of these strategies have effect sizes greater than 0.40, so they could lead to at least a year of growth!

**Synthesis of Research Findings**

This section of the literature review provides the research found on various instructional strategies and their effect sizes, if applicable. Some strategies are categorized under other strategies and some strategies are stand-alone strategies.

**Goal Setting**

Goal setting can be done by both the teacher and the students. Teachers create learning goals for their lessons which are also referred to as learning targets. Fisher et al. (2017) referred to learning goals as learning intentions. According to Marzano (as cited by Hattie, 2009, p. 203), effective teachers have instructional goals that are clear and communicated to students as well as parents. When teachers create goals that are
challenging, the effect size is 0.56 (Hattie, 2009). Petty (2009) wrote that students can see a purpose for what they are learning when goals and targets are set and those goals are both meaningful and interesting to them. He referenced Marzano’s work and specifying goals for students has an effect size of 0.97 (Petty, 2009). Specifying the goals for the students ensures that the students have specific goals before the lesson, and these goals can either be written or verbal. Petty wrote that sometimes students misinterpret goals, tasks, and assessment criteria which leads to doing the wrong thing and failing to produce good work. In addition to the learning goals or learning intentions, students need success criteria as well (Fisher et al., 2017). “Effective teachers establish not only the learning intentions but also the success criteria” (Fisher et al., 2017, p. 43). Success criteria helps students know when they are successful with their goals (Fisher et al., 2017). Learning goals and learning intentions should be specific, and students need to understand them (Fisher et al., 2017; Petty, 2009).

Students can also create learning goals for themselves. According to Marzano’s table of effect sizes, when students can be a part of setting their goals, the effect size increases to 1.21 (Petty, 2009). Student motivation is higher when they set worthwhile goals (Hattie, 2009). Johns (2015) discussed student motivation and how it increases when they graph their own progress data. Self-graphing provides students with a visual of their progress and then they can set goals to work towards based on their progress. “Goals have a self-energizing effect if they are appropriately challenging for the student, as they can motivate students to exert effort in line with the difficulty or demands of the goal” (Hattie, 2009, p. 164). Martin (2011) referenced challenging goals and stated that when students meet these goals, they can gain pride, self-satisfaction, and enhanced efficacy.
Hattie and Zierer (2018) wrote about motivation and how it has an effect size of 0.48. “Learning requires motivation, and it is difficult to initiate learning processes without motivation” (Hattie & Zierer, 2018, p. 49).

Students can also set personal best goals for themselves, and these are known to increase student motivation (Martin, 2011). Hattie and Zierer (2018) discussed “personal bests” for students as it relates to setting goals:

The major value of “personal bests” is that they make the goals “owned” by the students, make it clear to them what they need to strive for to outperform a previous best, help direct attention and effort toward the goal-relevant tasks, create an internal pressure to perform while arousing energy and effort, and thus can energize students to persevere and stay on task (often despite failure) to reach the “personal bests.” (p. 64)

Similarly, just as there can be “personal bests,” students can also have personal goals; and research says that “students are more likely to engage in school goals that are linked to their personal goals” (Marzano & Pickering, 2011, p. 13).

Quirk et al. (2009) conducted a study with second-grade students and their motivation to read. They believed that setting goals for reading had an impact on reading skills for students in the early elementary grades. Their study concluded that reading goals were not related to reading fluency; however, “children who have good reading self-concepts are more likely to set goals for their reading” (Quirk et al., 2009, p. 219). Quirk et al. determined that setting goals for reading helps with motivation to read.

**Direct Instruction**

Direct instruction “offers a pedagogical pathway that provides students with the
modeling, scaffolding, and practice they require when learning new skills and concepts” (Fisher et al., 2017, p. 53). Direct instruction is also referred to as active teaching, explicit instruction, and whole-class interactive teaching (Petty, 2009). “There is no agreed structure for any one of these methods, but they are all very similar, highly structured, teacher controlled, but active for the learner” (Petty, 2009, p. 103). Petty (2009) referenced Hattie’s effect-size table and identified an effect size of 0.81 for whole-class interactive teaching. Hattie also has an effect-size table for special education, and whole-class interactive teaching in this table has an effect size of 0.90, higher than with regular education (Petty, 2009). “Whole-class interactive teaching owes its high effect size to being a ‘Russian doll’ that contains many any [sic] other strategies, such as explaining objectives, active learning, feedback, reviews, and homework” (Petty, 2009, p. 105). Petty stated that whole-class interactive teaching involves modeling for the students, monitoring them as they practice, and then assigning an activity where they work independently.

Direct instruction has an effect size of 0.59 (Fisher et al., 2017; Hattie & Zierer, 2018), and there are seven features that are a part of direct instruction. The features of direct instruction as written by Hattie and Zierer (2018) are listed below:

1. There is a clear idea of what the learning intentions of the lesson are.
2. The teacher needs to know, and the students informed, what success criteria of performance are to be expected and when and what students will be held accountable for from the lesson/activity.
3. There is a need to build commitment and engagement in the learning task.
4. The teacher should present the lesson using modeling, checking for
understanding, and providing worked examples.

5. There is much **guided practice**; the opportunity for each student to demonstrate his or her grasp of new learning by working through an activity or exercise while the teacher provides feedback and individual remediation as needed.

6. There is the **closure** to the lesson, whereby students are helped to bring things together in their own minds, to make sense out of what has just been taught.

7. There is **independent practice** -- probably the most critical part often omitted when implementing direct instruction. (p. 109)

Hattie and Zierer believed that the above seven features are powerful and instead of referring to it as direct instruction, they call it “deliberate teaching and learning” or “DTL” (p. 110). Some of them are also the same as referenced above for whole-class interactive teaching.

**Vocabulary Instruction and Programs**

In the book *Designing Literacy-Focused Schools* (2019), vocabulary instruction is listed as Number 4 in the top eight research-based high yield literacy strategies. It has an effect size ranging between 0.67 (Fisher et al., 2017) and 0.85 (Designing Literacy-Focused Schools, 2019) and supports academic growth in students. Direct vocabulary instruction is identified in the book as a significant practice for at-risk students along with “the building of context around key vocabulary during lessons” (Designing Literacy-Focused Schools, 2019, p. 57). “Research and evidence has found that when schools make a commitment to explicit vocabulary instruction as a critical aspect of all lessons at every grade level, student achievement increases” (Designing Literacy-Focused Schools,
Fisher et al. (2017) highlighted three vocabulary instruction programs that assist with students and their vocabulary. Vocabulary self-awareness, vocabulary self-selection, and scavenger hunts/realia are the three programs discussed, and all involve students understanding words they need to learn and keeping track of those words during the learning process (Fisher et al., 2017). Vocabulary self-awareness is an activity where students assess their own knowledge of the words in a selected reading passage. They then complete a self-awareness chart referencing words they know and words they do not know. The chart has spaces for the student to write the dates as they accomplish various milestones such as when they can write a definition of the word, an example of the word, or when they can do both of these activities. There is also space for the student to identify words they do not know at all. Once they learn more about the word, they have the space to update those dates (Fisher et al., 2017).

Vocabulary self-selection is a process that allows students to decide which vocabulary words they consider important either for themselves or for their class (Fisher et al., 2017). These words can come from various media outlets such as television, internet, and even interactions with others. As the students identify their words, they must explain why they think the word is important. Fisher et al. (2017) referenced a second-grade class that has a class word jar that students add words to, and the jar is occasionally opened so students can share their words with the class. If other students find a word that is interesting to them, they write it down in their vocabulary journal (Fisher et al., 2017).

Scavenger hunts and realia is similar to the above vocabulary strategy of self-selection. With this strategy, students are given words with a challenge of finding
examples of the word. Visual examples can be found from items like magazines and newspapers but not in textbooks. Realia is identified as finding the object itself (Fisher et al., 2017). The words the students are on the hunt for are related to each other. Fisher et al. (2017) provided an example scavenger hunt for kindergarten that listed various fruits and vegetables.

“For students to deepen their understanding of vocabulary, they need to engage with those words both collaboratively and independently” (Fisher et al., 2017, p. 141). Word sorts and vocabulary cards are two examples given by Fisher et al. (2017) that allow students an opportunity to work with vocabulary independently. Two examples of word sorts include students classifying words based on word meanings or building their phonics knowledge by using word families. Students can create their own categories in open word sorts, and teachers create the categories in closed word sorts. The creation of vocabulary cards is another example of an independent student activity that Fisher et al. referenced in their writing. Each card is divided into four quadrants providing spaces for the vocabulary word, definition, antonym, and an illustration. Fisher et al. explained that when the students take the time to create the card, they are “concentrating on the meaning, use, and representation of the term, thereby increasing the likelihood that the term will become a part of the permanent vocabulary” (p. 143).

Denton et al. (2010) referenced findings from the National Reading Panel in 2000 on the subject of vocabulary instruction. According to the panel, “vocabulary instruction is most effective when words are taught both directly and indirectly through exposure in the context of reading and listening, when students receive multiple exposures to vocabulary words, and when students are actively engaged in vocabulary instruction”
Kennedy (2019b) discussed exposure to vocabulary words and stated that students should “encounter a word about 12-17 times before they know it well enough to improve their comprehension” (p. 4). More specifically, if students are on grade level, they need to hear a vocabulary word at least 12 times; and if they are below grade level, they need to hear the word at least 17 times (Kennedy, 2019b). Denton et al. referenced a 2008 study by Solari and Gerber with English language learners. Within this study, kindergarten students receiving direct instruction in both vocabulary and comprehension strategies did better with listening comprehension than their peers (Denton et al., 2010).

**Phonics Instruction**

Phonics instruction is a high-impact literacy strategy in the surface learning phase and has an effect size of 0.54 (Fisher et al., 2017). This strategy is usually introduced in kindergarten, and Fisher et al. (2017) referred to it as speech-to-print connection. There are three elements of phonics instruction: phonemic awareness, letter knowledge, and sound/symbol relationship. Phonemic awareness is where the students manipulate and segment the sounds of words. Letter knowledge involves learning both the name and shape of the letters in the alphabet. Sound/symbol relationship allows the students to match language sounds to letters or a combination of letters. When students become successful with the elements of phonics instruction, they begin to learn how to spell various words (Fisher et al., 2017).

Denton et al. (2010) conducted a study on a summer school reading program for kindergarten students and referenced the importance of phonological awareness and phonics instruction for students with reading difficulties. The National Reading Panel (as
cited in Denton et al., 2010) determined that phonics-based interventions had an effect size of 0.98 for students who struggled to read in kindergarten through second grade.

Engagement

Wolpert-Gawron (2018) passionately reminded her readers that teachers must make their curriculum more engaging than the outside elements the students face each day. Teachers compete with social media, hunger, bullying, abuse, and other items that are more interesting than their lesson, so the lessons must be engaging. Wolpert-Gawron (2018) provided three reasons for focusing on student engagement in the classroom.

Wolpert-Gawron (2018) said it increases student achievement, helps with classroom management, and adds a little more joy to the job of teaching. “Kids simply won’t learn if they aren’t engaged” (Wolpert-Gawron, 2018, p. 26). Hunt and Holmes (2018) wrote an article on ways to engage students because so many teachers struggle with keeping their attention. Hunt and Holmes referenced a 2014 Gallup poll which reported that nearly half of the students surveyed were not engaged or actively disengaged in school. Hunt and Holmes suggested that teachers should use innovative sets and closures in their lessons. “Sets serve as a ‘hook’ to capture students’ attention at the beginning of a lesson; closures serve as an ‘anchor’ to hold information in memory through the use of engaging review opportunities at the end of the lesson” (Hunt & Holmes, 2018, p. 117).

Hattie (2009) referenced engagement and the effect it has on achievement. When engagement is increased, the effect is relatively high at 0.62. Hattie later wrote that using computers helps with student engagement and they help students have a more positive attitude towards school and learning. Petty (2009) referenced Marzano’s effect size chart and stated that computer simulation drag and drop activities and games where students
are in pairs or groups discussing the work and correcting each other result in an effect size of 1.45. The computer simulations can be done using a computer and screen or an interactive whiteboard (Petty, 2009). Macaruso and Walker (2008) conducted a study on a program called Early Reading by Lexia Learning Systems. The Early Reading program kept students engaged in a syllable activity where they were required to pull down a ball for every syllable they heard in words that appeared on their computer screen (Macaruso & Walker, 2008). Pulling down the ball for each syllable is an example of a computer-simulated drag and drop activity. The Early Reading program has been replaced with Lexia® Core5® Reading (2019) and the program continues to engage PK through fifth-grade students in game-like activities in six areas of reading instruction.

Computer simulation activities fall under a strategy Marzano referred to as “decisions, decisions,” also known as manipulatives (Petty, 2009). This strategy has an effect size of 0.89 and includes sets of cards with various activities that can be completed. Once the students get the card sets, they “sort, match, group, sequence or rank the cards” or they place the cards on a graphic organizer or diagram (Petty, 2009). Weiser and Mathes (2011) conducted a synthesis of the research on encoding instruction with elementary students; and within their study, the use of manipulatives was mentioned several times.

All of the interventions included in this synthesis used manipulatives in some fashion (e.g., tiles, counters, plastic letters, real letters, and Elkonin boxes), and students were explicitly and systematically taught to manipulate phoneme-grapheme correspondences, which in turn significantly improved their reading and spelling abilities. (Weiser & Mathes, 2011, p. 191)
One study referenced supplemental encoding instruction with second graders, and the students were engaged with word sorts and word building activities. Another study focused on kindergarten students as they received small group instruction with an opportunity to use tiles and letters while working on “a say-it and move-it phonemic awareness activity” (Weiser & Mathes, 2011, p. 188). The students participating in these studies outperformed students who were not a part of the studies.

“When student interest is engaged, motivation to learn is heightened, and learning is enhanced” (Tomlinson & Imbeau, 2010, pp. 16-17). Teachers can find out what their students are interested in and create lessons around those interests. Hattie and Zierer (2018) reminded their readers that challenging tasks can be engaging for students if they consider the task interesting. If the task is boring, the student will naturally not be engaged in the activity. Elementary school teacher Michael Bonner (2017) purposefully pulled guided reading books that his students were interested in, and his students complained when their reading time had to come to an end. They were engaged in his lessons. “By bringing the students’ choices and interests into the classroom, you will have made your room and the learning that happens inside of it more meaningful. That translates to engagement” (Wolpert-Gawron, 2019, p. 27).

“It is not teacher explanation, but active learning that creates achievement” (Petty, 2009, p. 234). Kummings et al. (2019) referenced the work of John Dewey and how he “suggested that the best type of teaching is found in lessons that connect academic content to students’ interests through active learning experiences” (Kummings et al., 2019). Kummings et al. went on to discuss problem-based and project-based learning activities where students get to solve real world problems resulting in active learning.
Eberly and Joshi (2018) wrote an article referencing problem-solving activities for kindergarten students. “Kindergartners actively seek to understand their world, and they learn best through active engagement and intentional teaching practices that encourage problem solving and deep understanding” (Eberly & Joshi, 2018, p. 150).

Students can be engaged in activities as well as enjoy activities when they have the skills they need for whatever their activity or challenge may be (Fisher et al, 2017; Martin, 2011). When students are engaged, they can easily lose track of time. If students have skills that exceed the activity or challenge, this could result in boredom for them. Last, if students do not have enough skills for the activity or challenge, they can become frustrated (Fisher et al., 2017).

**Feedback**

“Expert teaching requires monitoring student progress, providing feedback, and adjusting lessons based on the learning of students” (Fisher et al., 2017, p. 27). Hattie (2009) wrote about feedback and the various ways to give and receive feedback. Hattie said that “when feedback is combined with effective instruction in classrooms, it can be very powerful in enhancing learning” (p. 178). Petty (2009) also referenced feedback and compared Hattie’s effect sizes and Marzano’s effect sizes. Hattie’s effect size for feedback was 0.81, and Marzano’s was 0.74. With Petty’s comparison, he noted that under Marzano, highly specific feedback could result in an effect size of 1.13, which is extremely high (Petty, 2009). Overall, effect size for feedback is high ranging between 0.73 and 1.13. “Teacher’s feedback is highest quality when there is dialogue between the teacher and the class” (Petty, 2009, p. 179). Teachers should make sure they do not take just one student’s answer to a question to be representative of the whole class, but they
should get answers from several students in the class (Petty, 2009). Fisher et al. (2017) informed their readers that feedback should be structured so students have an opportunity to “hypothesize, reflect on their own learning, and evaluate their own approaches as well as those of their peers” (p. 68).

Since this research focuses on strategies used by K-2 teachers, research relative to feedback that can be given in elementary classrooms is included. There are three major feedback questions for teachers and students to try to answer (Hattie, 2009; Hattie & Zierer, 2018). The first question, “Where am I going,” pertains to the learning goals. “How am I going” pertains to self-assessment, and “Where to next” allows the teacher and the learner to begin to think about new goals. Petty (2009) expanded on Marzano’s highly specific feedback and how it needs goals, medals, and missions. The goals Petty referred to are very similar to Hattie’s first question. Petty’s references to medals and missions correlate to Hattie’s second and third questions. Medals represent “task-centered information on what you did/do well, in terms of the goals” (Petty, 2009, p. 90). Petty stated that overall, grades would not be considered medals because they lack details on what was done well. A mission is a “specific target to improve performance” (Petty, 2009, p. 90) and should be “challenging but achievable” (Petty, 2009, p. 91).

Hattie (2009) referenced feedback from computer programs with challenging tasks. When the feedback provides explanations to the student, the effect size is 0.66. If the feedback includes opportunities for remediation, the effect size increases to 0.73. Computer programs providing the correct answer to the students is not as effective as explanations and remediation. Computer programs have also been thought of as computer-aided instruction or integrated learning systems as studied by Kreskey and
Truscott (2016). Kreskey and Truscott’s study referenced computer-aided instruction and whether or not it assisted at-risk kindergarten students with their reading skills. Kreskey and Truscott mentioned two examples of integrated learning systems in their study: Lexia® Learning Systems and Headsprout Early Reading™. They referenced Headsprout Early Reading™ as “an internet-based program for students in kindergarten through second grade who are not yet reading or who are at the beginning stages of learning to read” (Kreskey & Truscott, 2016, p. 143). The program is one that provides feedback based on the performance of the students, as it can “advance to new material or provide review automatically” for each student (Kreskey & Truscott, 2016, p. 143). Kreskey and Truscott analyzed data collected after students were a part of the Headsprout Early Reading™ program, and they determined that “participation in Headsprout did not appear to provide added benefits to kindergarten students at risk for reading failure” (p. 148).

Lexia® Learning Systems is another integrated learning system mentioned in the study by Kreskey and Truscott. Macaruso and Walker (2008) conducted a study on Lexia® Learning Systems, specifically their Early Reading program. They stated that the program “maximizes time-on-task for each activity by providing immediate feedback after each response” to the students as they work through the program (Macaruso & Walker, 2008, p. 270). After analyzing posttest data on the Gates MacGinitie Reading Test, the results of their study showed that the Early Reading program helped gain positive results for low-performing kindergarten students.

Formative assessment is another way to get feedback from the students about what has been learned by the students. Hattie and Zierer (2018) stated that providing formative evaluations has an effect size of 0.90. Formative evaluations allow teachers to
observe what errors and misconceptions the students are having during a lesson, and then they can think about what other instruction might be needed (Fisher et al., 2017). “It helps the teacher modify instruction, see the effects of their teaching so far, and hints as to where to go next in their teaching” (Hattie & Zierer, 2018, p. 6). Fisher et al. (2017) discussed formative evaluations and stressed that using “assessment for the purpose of formative evaluation, in order to figure out what works, moves your teaching from the realm of chance to one of intentional design” (p. 196).

**Differentiation**

Students have various abilities and interests; and as a result, “decisions about curriculum, teaching and interactions with children should be as individualized as possible” (Tomlinson & Imbeau, 2010, p. 6).

Differentiation is an individual-focused approach to teaching. It is the manifestation of a conviction that every student is both unique and of prime importance as a learner and as a human being. It is an affirmation that human differences are normal and desirable, and that excellent teachers plan, teach, and reflect with those differences in mind. (Tomlinson & Imbeau, 2010, p. 37)

Differentiated classrooms give each student the opportunity to learn skills effectively, and each student has support during the learning process so they can be academically successful (Tomlinson & Imbeau, 2010). In order to ensure each student is successful, activities and practices in the classroom are “inclusive and engage each learner” (Tomlinson & Imbeau, 2010, p. 116).

Routines found in differentiated classrooms include whole class activities, independent activities, and small-group activities (Tomlinson & Imbeau, 2010). Hattie
(2009) wrote about small-group learning and shared that it has an effect size of 0.49. “For grouping to be maximally effective materials and teaching must be varied and made appropriately challenging to accommodate the needs of students at their different levels of ability” (Hattie, 2009, p. 95). Teachers who implement effective differentiated classrooms take the time to understand their “students’ readiness levels, interests, and learning profiles” (Tomlinson & Imbeau, 2010, p. 18).

Differentiation is a growth mind-set endeavor--it asks teachers to find an academic entry point relative to essential learning outcomes, to make instructional plans designed to move students to mastery of those outcomes, and to adopt a “whatever it takes” approach in doing so. (Tomlinson & Imbeau, 2010, p. 33)

“In order to develop instruction that maximizes each student’s opportunity for academic growth, the teacher then modifies content, process, product, and affect” (Tomlinson & Imbeau, 2010, p. 18). Kennedy (2019a) similarly reiterated the above and identified the different paths to differentiation as content, process, product, and environmental. Differentiated classrooms that are effective also have teachers who consistently use assessments to help them make instructional decisions in that classroom (Tomlinson & Imbeau, 2010).

Technology and the use of blended learning are now becoming ways teachers differentiate in the classroom because personalized learning can occur. Mackey (2015) published case studies showing the success of blended learning in 12 different school districts. The Enlarged City School District of Middletown, Hamilton County Community Unit School District 10, and Spring City Elementary Hybrid Learning School are three case studies that included blended learning at the elementary levels. All three
case studies use a Station Rotation model with their blended learning implementation.

The Enlarged City School District of Middletown is in Middletown, New York. Some elementary schools in this district implemented blended learning starting in 2013, and those schools showed more growth than schools not using blended learning in both reading and math. The growth data came from the 2015 Northwest Evaluation Association’s Measures of Academic Progress (NWEA MAP) scores, and growth was evident in Grades K-5 (Mackey, 2015). The Station Rotation model in these schools has a 75-minute reading block, and the rotations vary each day based on the needs of the students as identified by the data from the online resources. Some days may start with whole class instruction and then station rotations, and some days may start with station rotations and then come together as a whole class. Teachers work with intervention groups while others work with online programs (Mackey, 2015). Mackey’s (2015) case study shared the online reading programs utilized by Middletown schools. Their programs are listed below.

- IXL Learning™
- i-Ready™
- Lexia® Reading
- myON Reader™
- Achieve3000™

Some of these programs and others are used by the Middletown district for math as well; but this literature review is on literacy strategies, so I only listed the programs used for reading and continue to do the same for the remaining case studies summarized below. Lexia® Reading, now Lexia Core5 Reading™, was featured in a 2019 press release by
Globe Newswire reporting the success of the program for K-5 readers. The press release highlighted percentages of students who went from below grade level to on or above grade level as well as percentages of students reaching their goals for benchmarks (Andrist, 2019).

Hamilton County Community Unit School District 10 is in McLeansboro, Illinois, and is the second case study from Mackey (2015) that was focused on the elementary level. Hamilton County Community Unit School District 10 implemented blended learning in the second-grade for math and reading during the 2013-2014 school year. Just like the Middletown district, the NWEA MAP data showed that students in the blended learning classrooms performed better than the students who were not in the blended learning classrooms. The Hamilton County Community Unit School District 10 used their Station Rotation model with students rotating in three different stations: individual with the use of online programs, collaborative, and direct instruction. The teachers use data collected from the online programs and created the groups for the stations. The reading programs this district used are listed below.

- Front Row™ (currently known as Freckle™)
- IXL Learning™
- Reading Eggs™

Spring City Elementary Hybrid Learning School is in Royersford, Pennsylvania, and is the third case study published by Mackey (2015) that focused on the elementary level. This school launched in 2012 with 130 students in K-4, and they used the Station Rotation model where students rotated every 20 minutes. The rotations happen in English, math, science, and social studies; and the students work individually,
collaboratively, and with direct instruction. The individual station is time for the online programs, and teachers use the data from the programs to plan their direct instruction lessons and the collaborative stations. The online programs for Spring City Elementary Hybrid Learning School are listed below.

- Reading Eggs™
- Compass Learning™
- Education City
- Achieve3000™

The case studies mentioned above referenced several different technology programs that are considered to be adaptive, which results in personalized learning for students using the programs. When technology programs are adaptive, they become another path for differentiation (Kennedy, 2019a).

**Comprehension Skills and Programs**

“The ability to remember what has been read and relate it to background information is critical for reading comprehension” (Fisher et al., 2017, p. 152).

Comprehension programs assist with reading comprehension and have an average effect size of 0.60 (Fisher et al., 2017). Close reading is an instructional practice that falls under the deep learning phase, and it is used to build student habits for reading closely to help develop deeper comprehension (Fisher et al., 2017). The close reading strategy started being used with elementary students in the last 10 years and has an effect size of 0.63 (Fisher et al., 2017).

What is especially powerful about close reading is that it draws upon several high-impact instructional routines, typically with text that is more complex relative to
the reader’s independent reading level, and it is meant to stretch the student’s reading comprehension through a questioning and rereading protocol. (Fisher et al., 2017, p. 93)

Two strategies mentioned in the above quote are questioning and rereading protocol or repeated readings. Questioning is a strategy under the deep learning phase and has an effect size of 0.48. Repeated reading is a strategy under the surface learning phase, and it has an effect size of 0.67 (Fisher et al., 2017).

Reciprocal teaching is a strategy that has an effect size ranging between 0.74 to 0.86 and serves the purpose of helping students with their comprehension skills (Fisher et al., 2017; Petty, 2009). Reciprocal teaching teaches students to create, monitor, and improve their understanding when completing comprehension activities with their peers (Petty, 2009). Students are grouped together and discuss text given to them by the teacher. Students use four reading comprehension strategies to help them understand the text: questioning each other about the text, clarifying understandings, summarizing, and predicting (Fisher et al., 2017). Summarizing is a strategy in the surface learning phase with an effect size of 0.63 (Fisher et al., 2017). “A strength of reciprocal teaching is that it fosters consolidation of knowledge and comprehension” (Fisher et al., 2017, p. 127). Reciprocal teaching helps students improve “their ability to comprehend, summarise [sic], and ask pertinent questions” (Petty, 2009, p. 154).

Peer tutoring is another high-impact strategy under the transfer learning phase. Peer tutoring has an effect size of 0.55, and paired reading is a strategy that falls under the peer tutoring category (Fisher et al., 2017). In paired reading, students with mixed ability are paired together so they can read to each other as a way to develop both fluency
and comprehension. The stronger reader reads a selected passage first, while the weaker reader follows along and corrects any errors made by the stronger reader. The stronger reader reads first, which allows them to model for the weaker reader (Fisher et al., 2017). Fisher et al. (2017) highlighted a second-grade teacher who used this strategy, and the teacher gave the students roles as “coach” and “player.” The “player” is the reader, and the “coach” is the one correcting errors. Eventually, the roles are reversed and the player becomes the coach and vice versa (Fisher et al., 2017).

The National Reading Panel referenced reading comprehension and “recommended that instruction should guide students toward an awareness of their own cognitive processes while reading (i.e., metacognitive processing)” (Denton et al., 2010, p. 424). Metacognition is defined in the Merriam-Webster (n.d.) dictionary as an “awareness or analysis of one’s own learning or thinking processes.” Metacognitive strategy instruction is a strategy in the deep learning phase and has an effect size of 0.69 (Fisher et al., 2017). When teachers model and teach metacognitive comprehension strategies, many students can learn to comprehend the text they read (Denton et al., 2010). Benchmark Education™ (2020) is a company that focuses on K-8 literacy and metacognitive strategies in a resource provided on their website. Students in Grades K-2 must be taught to plan before they read as well as monitor their comprehension, both done by teacher modeling, practice, and direct instruction (Benchmark Education™, 2020). The use of think alouds is one example given to teach comprehension strategies, and this could be done while reading aloud to the students or by facilitating student think alouds during whole group or small group instruction (Benchmark Education™, 2020).
Reading Interventions

“An intervention program must be specific and focused, not just more of the same thing over a longer period of time” (MacDonald & Figueredo, 2010, p. 405). Fowler-Coils (2016) conducted a study on reading fluency interventions in the classrooms of high-poverty schools and determined that interventions can help to improve reading fluency and comprehension. In her research, she discussed guided reading with small groups, tutoring during school as well as after school, and computer-based interventions. All three of these were considered interventions that helped with reading fluency (Fowler-Coils, 2016). Research has shown that oral reading fluency and reading comprehension have a positive relationship for first- through fifth-grade students (Denton et al., 2010). “A more fluent reader is able to free up cognitive space for comprehending text through increasing automaticity in recognizing words in running text” (Fisher et al., 2017, p. 186).

Guided reading instruction serves the purpose of teaching small groups of students reading while considering their skill weaknesses and working to develop those skills (Fisher et al., 2017). “It’s part of the overall structure and fabric of the elementary school classroom, and allows teachers an opportunity to observe their students reading and thinking so that they can make appropriate adjustments in instruction” (Fisher et al., 2017, p. 84). Guided reading instruction can be 20 to 30 minutes long and includes a familiar reading with discussion, a book introduction, student reading, word work, questioning/discussion, and writing (Fisher et al., 2017, p. 85, Figure 4.2). Word work varies depending on the levels of the students. It may be working on phonics instruction, sight word practice, vocabulary building, spelling, or word meanings (Fisher et al.,
Tutoring programs also serve as a way to provide interventions to students. MacDonald and Figueredo (2010) conducted a study on an intervention program used with at-risk kindergartners which resulted in positive results for those students. The Kindergarten Early Literacy Tutoring program, otherwise known as KELT, required the kindergarten students to spend a half day in the program with a tutor. After the KELT program concluded, they spent the other half of their day in a regular kindergarten program. The quote below is from a principal of one of the schools that had the KELT program on their campus and reflects the impact the program had on the kindergarten students involved.

In all my 25 years as an educator, I feel that the KELT program has had the most impact on student academic progress over a short period of time. Every child has experienced growth in the use and understanding of oral language and is ready to take on grade 1! They are more outgoing and confident and demonstrate a love of literacy. (MacDonald & Figuerdo, 2010, p. 418)

The KELT program had four focus areas including oral language, phonemic awareness, print awareness, and alphabet knowledge, with the purpose of helping literacy skills (MacDonald & Figueredo, 2010).

**Cooperative Learning**

Cooperative learning is a strategy with an effect size of 0.59, according to Hattie and 0.73 according to Marzano (Petty, 2009). Petty (2009) wrote that when cooperative learning methods are used well, they “can improve students’ achievement by at least a grade” (p. 143); and these methods work for every academic level as well as for every
subject.

Petty (2009) discussed research on cooperative learning and compared it to competitive learning and individualistic learning. These comparisons have effect sizes showing the readers how much better cooperative learning is when compared to competitive and individualistic activities. Cooperative versus competitive activities have an effect size of 0.66, and cooperative versus individualistic activities have an effect size of 0.63 (Petty, 2009). Petty informed his readers that competitive activities are those where students compete with others in the class, and individualistic activities are those where students work independently on an assignment.

Data Analysis

Jensen (2009) wrote that all schools should have continuous data collection in order to be successful. “If your data show gaps in student learning, focus on building skills to upgrade students’ academic operating systems” (Jensen, 2009, p. 75). Analyzing student data to understand performance and progress was one of the strategies used by schools that doubled their performance in achievement (Hattie, 2009). Data analysis helps teachers form small groups within their classroom to empower instruction and assist with student learning (Bonner, 2017). “It’s what you do with the assessment data you have that determines whether children will continue to grow or not” (Fisher et al., 2017, p. 196).

Need for Further Research

“The SAS Educational Value-Added Assessment System (SAS® EVAAS®) is the most widely used value-added system in the country” (Amrein-Beardsley & Collins, 2012, p. 1). According to Amrein-Beardsley and Collins (2012), SAS® EVAAS® has
been in development for over 20 years.

My study seems to be the beginning of the research on effect sizes for various instructional strategies and their relation to student growth in EVAAS®. As a result, more on this topic is what is needed to be researched further.

Within the literature review, effect sizes were correlated to growth, percentile gains, and increases in grades. There is not much in the literature review with effect sizes in comparison to student growth with the exception of Hattie (2009) and Fisher et al. (2017). Hattie and Fisher et al. stated that strategies having an effect size higher than 0.40 assist with a year of growth during 1 year in school. What is meant specifically by that year of growth and its relation to teacher effectiveness data in EVAAS®?

**Research Question**

There is one main research question that is the focus of this study: What strategies are utilized by kindergarten, first-, and second-grade teachers whose data show consistent growth with their students? Specifically, this study focused on those teachers who met or exceeded growth in EVAAS® for 2 or more years in the area of reading.

**Summary**

This literature review has provided various instructional strategies having effect sizes representative of an increase in student achievement as it pertains to literacy. Student achievement can represent proficiency on end-of-grade tests, increases in grades, and how much growth a student makes during 1 school year of instruction. This study focused on instructional strategies used by K-2 teachers who consistently met or exceeded growth in EVAAS®. As the study was conducted, strategies used in their classrooms leading to student growth were revealed. Will some of the strategies being
used by these teachers include those found during this literature review? Will there be other strategies that were not prevalent in the literature review? The answer to these questions are revealed in Chapters 4 and 5 of this research.

“There is no one way to teach, or one best instructional strategy that works in all situations for all students, but there is compelling evidence for tools that can help students reach their goals” (Fisher et al., 2017, p. 2). Whatever the strategies are, other teachers need to know about them if they result in student growth. That was the ultimate goal of this work…to inform teachers about strategies that help students grow each year, not just be proficient on state tests.
Chapter 3: Methodology

Introduction and Purpose

The purpose of this mixed methods study was to determine commonly used strategies implemented by K-2 reading teachers who met and exceeded growth with their students according to North Carolina EVAAS® teacher effectiveness data. Once those commonly used strategies were identified, all K-2 teachers in North Carolina would have a resource to use as they attempt to promote growth with their students in their classroom.

This chapter begins with reviewing the problem that informs this study. It then covers the methodology in detail, the research question, participant selection, and instrumentation used. The chapter concludes with procedures for both data collection and data analysis, limitations, and delimitations.

Problem

This study is important because according to EVAAS® teacher effectiveness data in the state of North Carolina, not all teachers are meeting or exceeding growth with their students. This study focused strictly on K-2 reading teachers. From 2016-2017 to 2018-2019, an average of 3,000 K-2 reading teachers were not meeting or exceeding growth each year.

Methodology

“Most educational research is empirical; that is, it examines specific data, such as test-score results, teacher surveys, or parent interviews” (Butin, 2010, p. 71). This research study was an empirical mixed methods design; more specifically, explanatory sequential mixed methods. Creswell (2014) explained that this method entails quantitative research being conducted first, followed by qualitative research. “It is
considered explanatory because the initial quantitative data results are explained further with the qualitative data. It is considered sequential because the initial quantitative phase is followed by the qualitative phase” (Creswell, 2014, pp. 15-16).

The quantitative phase for this study consisted of surveys being distributed to K-2 reading teachers to get an idea of the various instructional strategies used during their reading instruction. Butin (2010) told his readers to “be clear that your survey questions are grounded in your own literature review, which itself is grounded in the research questions of your study” (p. 92). The survey participants completed in this study was created based on the instructional strategies researched within the literature review in Chapter 2.

The qualitative phase for this study was the facilitation of interviews with those teachers who agreed to participate. The interviews served the purpose of getting more details about the strategies identified in the completed surveys. One-on-one and focus group interviews are common methods used in research (Butin, 2010). I facilitated one-on-one interviews with teachers, and they were virtual using the Zoom application.

There are two philosophical worldviews that influenced this research study: pragmatic and postpositivist worldviews. The use of both quantitative and qualitative research in this study resulted in a mixed methods design, and this falls under the pragmatic worldview (Creswell, 2014). The postpositivist worldview is the other worldview that applied to this research study. Creswell (2014) wrote, “the problems studied by postpositivists reflect the need to identify and assess the causes that influence outcomes” (p. 7). The causes for this research study were the instructional strategies used in the K-2 reading classroom. The outcome that was influenced was student growth each
year. In essence, this research served the need to identify the instructional strategies that influenced student growth each year, and this reflected postpositivism.

**Research Question**

What strategies are utilized by kindergarten, first-, and second-grade teachers whose data show consistent growth with their students? This question was broken down into more specific questions, and they are written below.


b. What strategies did K-2 teachers meeting or exceeding growth say they utilized in their classrooms to show high levels of achievement during the 2016-2017, 2017-2018, and 2018-2019 school years as identified through the interviews?

**Participants**

The target population for this study was K-2 reading teachers in North Carolina and beyond. The sample population was pulled from licensed K-2 reading teachers in five primary schools located in a small rural district. Since the teachers were chosen based on “their convenience and availability” (Creswell, 2014, p. 158), I used a nonprobability sampling technique, also known as convenience sampling.

**Sample Selection Procedures**

The superintendent of the rural district was made aware of this study and informed me that once approval had been granted to conduct the study, I would need to work with the director of accountability. I received permission from the superintendent to
conduct the study via email on March 28, 2020. This email communication is in Appendix A. I received my IRB approval for the study on May 5, 2020 via email and this communication is in Appendix B. The director of accountability assisted me in analyzing EVAAS® teacher effectiveness data for K-2 reading teachers in the district for the 2016-2017, 2017-2018, and 2018-2019 school years. We identified all of the K-2 reading teachers in the district who had at least 1 year of EVAAS® data as well as all of the K-2 reading teachers who met or exceeded growth with their students for 2 or 3 years. As we looked for those teachers who met or exceeded growth, we specifically looked for those who had an index between -2 and 2 on their teacher value-added summaries.

Once those teachers were identified, I removed the K-2 teachers who worked at my school since I was the principal of that school. Those teachers were asked to assist me in piloting the study. After the pilot was completed, I emailed an informed consent for the online survey to all qualified teachers and conducted the interviews with each teacher who agreed to participate in the study. Each teacher was assigned a letter to ensure that they remained unidentifiable after the study was complete.

**Instrumentation**

Data collection was completed using surveys and interviews with K-2 reading teachers who had at least 1 year of EVAAS® data between the 2016-2017 to 2018-2019 school years. I, as the researcher, emailed the survey link to all qualified teachers and conducted the interviews with each teacher who agreed to participate in the study. Each teacher was assigned a letter to ensure that they remained unidentifiable after the study was complete.
Data Collection Procedures

As mentioned above, K-2 reading teachers from my school were asked to assist me in piloting the study. Maxwell (2013) wrote about pilot studies and how they are used to test methods or ideas. I asked these teachers to take the survey to get their feedback on the questions. Their responses were not a part of the data analysis. I then interviewed those who agreed to assist and received their feedback on the interview process and questions. Feedback received from the pilot teachers was helpful and used to make adjustments in preparation for the data collection process with all other K-2 reading teachers who qualified to participate in the study.

Phase 1 of this research study was the dissemination of a survey that asked participants to identify instructional strategies used during their reading instruction for the 2016-2017, 2017-2018, and 2018-2019 school years. The survey was completed through SurveyMonkey®. I, as the researcher, emailed the survey link to K-2 reading teachers who met the requirements for my study with hopes of having a 20% completion rate. The completion rate of 20% was equivalent to approximately eight or nine teachers completing the survey. The survey link was emailed two additional times after the original email was sent in an attempt to collect more responses. The second email was sent after 3 days, and the third email was sent after the first week. The survey window closed after a 2-week period. A copy of the survey questions and protocol is found in Appendix D. The end of the survey asked participants if they were willing to participate in the next phase of the research, the interviews. If they agreed to participate, they clicked on an external link that asked them to provide their name, best day/time to interview, and contact information. A copy of the form seen when the external link was opened is found
After the survey window closed, Phase 2 of the research study began. Phase 2 was the facilitation of the interviews and ran for approximately 1 week due to the low number of interviews scheduled. Since this is an explanatory sequential mixed methods design, the interviews were the qualitative data that helped “explain in more detail the initial quantitative results” (Creswell, 2014, p. 224). I began setting up interviews with teachers who agreed to participate using the contact information they provided through the external link in the survey. Singh (2014) stated, “Interviews provide the researcher with information from a variety of perspectives” (p. 81). I hoped to have a variety of teachers from Grades K-2 who agreed to the interviews, and only ended up with two teachers to interview. I originally planned to conduct face-to-face interviews with each participating teacher, but I had to conduct the interviews digitally. Unfortunately, this study happened during the middle of COVID-19, the Coronavirus pandemic. As a result, Roy Cooper, the governor for North Carolina, ordered all schools to close in March 2020 (Executive Order No. 117, 2020). Before the interviews took place, I emailed the participants an informed consent document and asked that they sign the form and email it back to me. A copy of the informed consent is in Appendix F. Interviews were conducted using the Zoom app which allowed the participant and me to see each other virtually. During the interview, I recorded teacher responses using google forms. Google forms allowed me to document all responses and have the answers organized and categorized in a spreadsheet after each interview. As a backup, I also recorded each Zoom interview. All recordings served the purpose of clarifying anything I missed and ensured answers were transcribed accurately. Interview questions are located in Appendix G.
Data Analysis Procedures

Creswell (2014) recommended listing the steps involved in the data analysis procedures, and I followed this recommendation. The steps listed are for both phases of this research study, with Phase 1 referencing the quantitative results from the surveys and Phase 2 referencing the qualitative results from the interviews. Since this is an explanatory sequential mixed methods design, both the quantitative data and qualitative data are analyzed at separate times (Creswell, 2014).

Step 1. The completion of the surveys by the study participants was the most important aspect of Phase 1 of this research. After allowing a 2-week window for completion, the survey was closed and the data analysis started.

Step 2. Survey results were organized in two different teacher groups. Group A consisted of teachers who met or exceeded growth for 2 or more years from 2017-2019. Group B consisted of teachers who only met/exceeded growth for 1 year or not at all from 2017-2019.

Step 3. The survey completion rate was determined for Group A and Group B, specifically with the number of surveys completed and not completed for each group. I then determined a percentage for completion for each group.

Step 4. The survey for this study was categorized into 12 different instructional strategies. The majority of the questions on the survey required participants to reflect on instructional strategies used in their reading classroom from 2017-2019 and “mark all that applied.” As a result, the surveys for each group of teachers were analyzed and compared to determine commonly used strategies for Group A and Group B. The results of each instructional category were displayed using double bar graphs where the percentage of
teacher responses were the labels for the y-axis and the strategies were the labels for the x-axis. The double bar graphs assisted in comparing the data for each group.

After comparing the data for both groups of teachers and determining commonly used strategies within the groups, Phase 2 started with contacting teachers who agreed to participate in the interviews.

**Step 5.** There were two interviews scheduled, and those interviews took place over a 1-week window. The data analysis started at the conclusion of the last interview. Responses from interviewees were transcribed in a Google sheets document which allowed for easy review and analysis.

**Step 6.** After analyzing the responses from both interview participants, I created tables representative of some of their responses to the questions and included those tables in Chapter 4.

**Step 7.** I was very careful not to merge the data from Phase 1 of this study with Phase 2 of this study (Creswell, 2014). In explanatory sequential mixed methods designs, “the intent of the design is to have the qualitative data help provide more depth, more insight into the quantitative results” (Creswell, 2014, p. 225). For this reason, I discussed how the information from the interviews expanded on the information I received from the surveys completed (Creswell, 2014).

Completing all of the above steps was dependent on getting a sample size that was big enough to analyze for both phases of the study. The sample size for the number of surveys that were completed was satisfactory. The sample size for the interviews was acceptable but not as satisfactory with only two participants. I analyzed all data to the best of my ability and mention the unsatisfactory sample size as a limitation in the study.
**Instrumentation Reliability and Validity**

Singh (2014) wrote, “ensuring reliability is about minimizing errors and biases in the study” (p. 83). One way to minimize the biases in this study was to ensure the sample population did not include the K-2 teachers from the school where I served as principal. Creswell (2014) told researchers that when we collect data from where we work or when we are in a supervisory role over the participants, information collected might not be accurate. As a principal, by excluding the K-2 teachers who work at my school from the study, the study became more reliable.

The survey questions and interview questions that were used during the study were created by me as the researcher. I sought validation for the survey questions from my dissertation chair. Feedback on the survey questions is in Appendix H. I sought validation for the interview questions from district administrators and my dissertation committee. Feedback on the interview questions is in Appendix I.

**Limitations**

There were a few limitations with this study. One limitation was the experience of the teachers observed and interviewed. There were varying degrees of experience between each participating teacher. Another limitation was the willingness of the teachers to participate in the study. My principalship in the district is another limitation for this study. I was not able to utilize K-2 reading teachers from my school in the study, and this decreased my sample population size. The North Carolina EVAAS® procedure for collecting assessment data for kindergarten teachers when compared to first- and second-grade teachers is one last limitation. Kindergarten teachers have EVAAS® data that are based on growth from the middle of the year to the end of the year. First- and second-
grade teachers have EVAAS® data based on growth from the beginning of the school year to the end of the school year.

**Delimitations**

There were two delimitations for this study, and both relate to time constraints. The first delimitation was the grade span of the teachers who were surveyed and interviewed. Due to the time constraints and accessibility of this study, only K-2 teachers were asked to participate. The time constraints also limited the number of districts involved in the study. If more districts were involved, a larger sample size would have been available. The study only took place in one district.

**Summary**

The purpose of this explanatory sequential mixed methods study was to identify strategies used by K-2 reading teachers who met or exceeded growth with their students based on North Carolina EVAAS® teacher effectiveness data. These strategies were identified through the use of surveys and interviews. Now that strategies promoting student growth have been identified, I hope to be able to share them with all K-2 teachers in the district as well as other K-2 teachers in the state of North Carolina.
Chapter 4: The Results of the Study

Introduction

This explanatory sequential mixed methods study was completed with the purpose of identifying reading strategies used by K-2 teachers who met and/or exceeded growth with their students as documented in North Carolina EVAAS® teacher effectiveness data. Due to the design of the methodology, there were two phases completed to gather data for the study. Phase 1 was quantitative, as surveys were used to collect commonly used strategies from the participants. Phase 2 was qualitative, as interviews were used to collect more details on the strategies identified in the survey.

There was one main research question that guided the focus of this study, and it was broken down into two more detailed questions. The main question and its supporting questions are listed below.

1. What strategies are utilized by kindergarten, first-, and second-grade teachers whose data show consistent growth with their students?
   b. What strategies did K-2 teachers meeting or exceeding growth say they utilized in their classrooms to show high levels of achievement during the 2016-2017, 2017-2018, and 2018-2019 school years as identified through the interviews?

The surveys administered and the interviews conducted assisted in answering the questions.
This chapter reviews the data collected from all completed surveys in Phase 1 and interviews from Phase 2. Surveys were administered to two groups of K-2 teachers. One group of K-2 teachers met or exceeded growth in EVAAS® for 2 or more years during the 2017-2019 school years. For the purpose of this study, this group will be identified as Group A. The second group of K-2 teachers did not meet growth or met/exceeded growth in EVAAS for 1 year only during the 2017-2019 school years. This group will be identified as Group B. Interviews were held with survey participants who were willing to participate in that phase. They had the opportunity to identify their willingness to participate at the end of the survey.

**Phase 1: Survey Results**

This section provides the participation rate for each group of teachers who completed the survey as well as participant demographics as it pertains to the teaching experience of those surveyed. Last, the research questions are addressed as we review the data results from the completed surveys. Responses from both groups of K-2 teachers are compared and shown with bar charts for visual representations. The survey questions are located in Appendix B.

**Teacher Participation Rate**

Before the data collection process began, my goal was to get at least a 20% completion rate from the surveys sent. Group A had 35 teachers who met the qualifications for this study, but only 30 of them were accessible via email. The five teachers who were inaccessible were no longer with the district where the study took place. Surveys were emailed to all 30 teachers who were accessible, and 12 completed the survey, for a completion rate of 40%. The completion rate goal was met for Group A.
Group B had 21 teachers who met the qualifications for this study, but only 14 of them were accessible by email. Just as with Group A, those identified as inaccessible were no longer with the district where the study took place. The surveys were emailed to all 14 teachers who were accessible, and three completed the survey, for a completion rate of 21%. Again, the completion rate goal was met for Group B.

**Participant Demographics**

The first question in the survey asked participants to identify the number of years they had been a classroom teacher. Group A had three teachers respond with 4-9 years of experience and nine teachers respond with 10 or more years of experience. Group B had three teachers respond with 10 or more years of experience.

**Research Question Results**

The survey utilized in Phase 1 had a total of 15 questions to be completed. The survey served the purpose of answering the first part of the research question for this study which is, “What strategies did K-2 teachers utilize in their classrooms during reading instruction for the 2016-2017, 2017-2018, and 2018-2019 school years as identified through surveys?” Questions 3-14 referenced instructional strategies used during reading instruction for the 2016-2019 school years. Most of the questions gave the participants the opportunity to state that they did not use any of the strategies or programs listed, and they could also identify other strategies they used. If they chose “other” as their answer choice, the survey prompted them to identify the strategy or program they used so that information could be considered and analyzed for the study. Within this section, Questions 3-14 have the data results displayed in a comparison chart reflective of responses from Groups A and B.
Question 3 asked the teachers to reflect on goal setting. They identified whether they posted their learning targets, if the targets were communicated to the students, and whether or not students were a part of setting goals for themselves. All survey respondents stated that they posted and communicated their learning targets. Some of the teachers in Group A stated that they allowed students to be a part of setting goals for themselves, specifically 41.67%. No respondent in Group B indicated this. These results are displayed in Figure 1.

**Figure 1**

*Question 3: Goal Setting Strategies*

```plaintext
<table>
<thead>
<tr>
<th></th>
<th>Group A</th>
<th>Group B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear learning targets - posted</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Learning targets communicated to students</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Students are a part of setting goals for themselves</td>
<td>41.67%</td>
<td>0%</td>
</tr>
<tr>
<td>None of the above</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Other</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>
```

Question 4 asked the teachers to identify components of direct instruction that they used during their reading block. Answer choices included modeling lessons, monitoring student practice during guided practice time, and providing independent practice/activities. All respondents stated that they implemented all three of these direct
instruction components in their reading instruction. These results can be seen in Figure 2.

**Figure 2**

*Question 4: Direct Instruction Strategies*

![Question 4: Direct Instruction Strategies](image)

Question 5 referenced vocabulary instruction and listed several strategies and/or programs for the teachers to reflect on as they completed the survey. The strategies included vocabulary self-awareness, self-selection, scavenger hunt, and cards. Word sorts and multiple exposures to words were two other strategies listed as choices for this question. The majority of the respondents in Group A stated that they had implemented word sorts (83.33%), vocabulary cards (66.67%), and multiple exposures to words (91.67%). One respondent stated that they did not use any of the strategies listed. The majority of the respondents in Group B, 66.67%, stated they had implemented scavenger hunts, word sorts, and vocabulary cards. Multiple exposures to words was implemented by 100% of the respondents in this group. There were some respondents in Group A who
stated they used vocabulary self-awareness and self-selection in their instruction, 33.33% and 25% respectively. No one in Group B identified these strategies as ones they used.

The details of these results can be seen in Figure 3.

**Figure 3**

*Question 5: Vocabulary Instruction and Programs*

![Vocabulary Instruction and Programs](image)

Question 6 asked participants about phonics instruction to include phonemic awareness, letter knowledge, and sound/symbol relationships. Figure 4 represents 100%
of the respondents stating that they taught each of these phonics skills during their reading instruction.

**Figure 4**

*Question 6: Phonics Instruction*

<table>
<thead>
<tr>
<th>Phonics Instruction</th>
<th>Group A</th>
<th>Group B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phonemic awareness</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Letter knowledge</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Sound/symbol</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Relationships</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>None of the above</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Question 7 referenced engagement strategies, and there were eight answer choices for the participants to choose from. One hundred percent of the respondents in Groups A and B stated they used manipulatives and card sets during their reading instruction. One hundred percent of the respondents in Group B stated they used games during instruction as well. All other strategies were used by over half of the respondents, with the exception of project-based learning. Group A had a 33.33% response rate, while Group B had a 66.67% response rate. The results for each individual engagement strategy can be seen in Figure 5.
Question 7: Engagement Strategies

Question 8 asked teachers to reflect on the types of feedback used during their
reading instruction. The answer choices asked if the feedback was specific, based on what the students did well, computer generated with explanations and remediation, and/or from formative assessments. The majority of the respondents from both groups stated they used all strategies with the exception of computer-generated feedback. This strategy had 41.67% of the respondents from Group A say that they used it, and Group B had 33.33% use it. The details of this question are documented in Figure 6.

**Figure 6**

*Question 8: Feedback Strategies*
Question 9 asked the participants to identify the types of differentiation they implemented during their reading instruction. There were a total of six answer choices for this question. Small group instruction by ability levels and blended learning were two of the six answer choices. The remaining answer choices were other forms of differentiation known as content, process, product, and environmental. One hundred percent of the respondents stated that they used small group instruction. All other answer choices were chosen by over 50% of the respondents in both groups. Additionally, one teacher from Group B chose the “other” category and specified that they used “pair and share” as a form of differentiation. Figure 7 gives a more detailed representation of all of the chosen answers for this question, including the “other” answer.

Figure 7

Question 9: Differentiation Strategies
Question 10 referenced blended learning and asked the teachers to identify digital/technology-based reading programs used during their instruction. There were nine different reading programs listed in the survey. The teachers could mark “none of the above” or “other” as an answer. The number of teachers selecting the listed programs were minimal. Group B had a low response rate to the majority of the reading programs listed, but two (66.67%) of the teachers stated they used IXL Learning™ and Reading Eggs™. Group B did not have any teachers identify any “other” programs used. The percentages of the specific reading programs are displayed in Figure 8.

**Figure 8**

*Question 10: Blended Learning*

Group A also had a low response rate to the reading program choices listed;
however, five of the respondents (45.45%) chose “other” and specified the programs they used. Documentation of the five “other” responses are shown in Table 1. One teacher did list Prodigy Math™ as a program they used in their classroom, but this is not a reading program. The program is listed in the table because it is representative of their complete answer in the survey.

**Table 1**

*Question 10: Blended Learning – Other Programs Used*

<table>
<thead>
<tr>
<th>Respondent 1</th>
<th>Moby Max™, Zearn™, Reading A-Z™</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondent 2</td>
<td>Readworks®, Zearn™</td>
</tr>
<tr>
<td>Respondent 3</td>
<td>Accelerated Reader™, Tumblebooks</td>
</tr>
<tr>
<td>Respondent 4</td>
<td>Zearn™</td>
</tr>
<tr>
<td>Respondent 5</td>
<td>Freckle™, Prodigy Math™, ConnectED™</td>
</tr>
</tbody>
</table>

Question 11 asked about comprehension skills and programs implemented during reading instruction. There were five answer choices provided for this question on the survey: close reading, reciprocal teaching, paired reading, metacognitive comprehension strategies, and think alouds. Over 50% of the teachers in Group A stated they tried all of the strategies listed with the exception of metacognitive comprehension strategies. Specifically, 41.67% of the teachers in Group A stated they used this strategy. The responses for Group B showed over 50% of the teachers stated they used all of the strategies listed, including metacognitive comprehension strategies. Reciprocal teaching and think alouds were two strategies used by 100% of Group B teachers. The comparison results for both groups of teachers and their responses are located in Figure 9.
Question 11: Comprehension Skills and Programs

Question 12 referenced reading interventions, and there were only three possible answer choices. Guided reading with small groups, tutoring programs, and computer-based interventions were the strategies teachers could choose from; and as in most questions, they could choose “none of the above” or “other.” Guided reading with small groups was chosen by 100% of the teachers in both groups. Additionally, 83.33% of the teachers in Group A and 100% of the teachers in Group B stated they used computer-
based interventions. Tutoring programs had a low response rate with Group A at 25% but had a high response rate with Group B at 66.67%. Figure 10 shows the answer results for this question.

Figure 10

Question 12: Reading Interventions

![Reading Interventions Bar Chart]

Question 13 was a yes or no question and it simply asked the participants if they utilized cooperative learning during their reading instruction. The majority of the teachers stated they did use cooperative learning, specifically 83.33% from Group A and 100% from Group B. Only 16.67% of the teachers from Group A stated they did not use cooperative learning strategies. The response comparisons for Question 13 are shown in Figure 11.
Last, Question 14 required the participants to reflect on data analysis during their reading instruction. There were two strategies listed for this question. The first was working with students one on one while focusing on the weaknesses identified in data collected, and the other answer choice was working with students in small groups focusing on the weaknesses found in the data. One hundred percent of the teachers in both groups stated they used these strategies. Figure 12 shows the results for this question.
That concludes the reporting of the responses for Questions 3-14 on the survey utilized during Phase 1 of this study. The next section reviews the results for Phase 2 of the study, the teacher interviews.

**Phase 2: Interview Results**

The final question of the Phase 1 survey was Question 15, and it asked the participants if they would be willing to work with me on Phase 2 of the study. Within the question, I informed the participants that Phase 2 was an interview that would be completed either face to face or via Zoom and would last between 20-30 minutes. I also explained that the purpose of the interview was to discuss some of the strategies identified in the survey in more detail, like the frequency and duration of use. The interviews conducted took approximately 45 minutes to complete with each participant.
This section provides the participation rate for each group of teachers who completed the interview as well as participant demographics, including the number of years of experience each had as a classroom teacher and the specific grades taught from 2016-2019. Last, the research questions are addressed as we review the data results from the interview questions and responses are shown with tables for each question. The interview questions are located in Appendix G.

**Teacher Participation Rate**

Group A had 12 teachers complete the survey, and one teacher agreed to participate in the Phase 2 interview. Group B had three teachers complete the survey, and one teacher from this group also agreed to proceed with an interview. This resulted in two teacher interviews, and both took place via Zoom. I documented the responses from the participants using a Google Form that I created, so all answers were organized in a Google Sheets document. Additionally, each Zoom interview was recorded, so the video was available for reference later as needed. The pseudonyms Teacher A and Teacher B have been assigned to each participant to keep their identity confidential as the results of the interview are discussed in this study. Both Teacher A and Teacher B were active participants and did not rush the interview process.

**Participant Demographics**

The first question in the interview asked participants to identify the number of years of experience they had as a classroom teacher. Teacher A had 16 years of experience, and Teacher B had 25 years of experience. The second interview question asked what grades they taught from 2016-2019. Teacher A was a first-grade teacher during the years in question, and Teacher B taught kindergarten during the 2016-2017
year. She retired after that school year and did not have EVAAS data for the 2017-2018 and 2018-2019 school years. It is important to note that Teacher A met or exceeded growth during the 2016-2019 school years, and Teacher B exceeded growth during the 2016-2017 school year.

Research Question Results

The Phase 2 interview had a total of eight questions to be completed. The interviews served the purpose of answering the second part of the research question for this study which is, “What strategies did K-2 teachers meeting or exceeding growth say they utilized in their classrooms to show high levels of achievement during the 2016-2017, 2017-2018, and 2018-2019 school years as identified through the interviews?” Questions 3-8 referenced professional development attended, instructional strategies and resources used that assisted with student growth, and challenges faced during reading instruction. All questions were open ended, so the participants could answer freely. Within this section, Questions 3-8 data results are displayed in tables.

Question 3 asked the participants if they attended any professional development from 2016-2019 referencing classroom strategies that promote student growth. Their answers are denoted in Table 2. Both teachers responded positively to this question and provided examples of the professional development they attended.
Table 2

*Question 3: Professional Development*

<table>
<thead>
<tr>
<th>Participant</th>
<th>Professional development referencing student growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher A</td>
<td>Dr. Kathy Kennedy lead teacher training on high probability strategies</td>
</tr>
<tr>
<td>Teacher B</td>
<td>Workshop facilitated by a lady from DPI (could not remember name of workshop); attended grade-level trainings on strategies for promoting growth in reading and how to use EVAAS®</td>
</tr>
</tbody>
</table>

Teacher B provided more details about how she used her training with EVAAS®. She informed me that she used the data from EVAAS® to help her set goals for her students, and she would set goals with them every year. As a kindergarten teacher, she knew where she wanted each of her students to be after the first or second month of school and set goals based on where they needed to be.

For Question 4, I reviewed each participant’s EVAAS® results with them as it pertains to the years they met growth or exceeded expected growth from 2016-2019. Once we reviewed those results, I asked them if they implemented the same strategies during the years in question or if they tried any new strategies over the years. Teacher A provided me with some background information before discussing the strategies she used over the years. The 2015-2016 school year was not one of the school years analyzed in this study, but she wanted me to know that this was her first year in first grade. Prior to becoming a first-grade teacher, she taught kindergarten for 9 years. She shared that she did not meet growth this year, and her principal met with her to discuss her EVAAS® data. This was her first exposure to EVAAS®; and after that exposure, she became very strategic in the strategies she used in her classroom and how she differentiated.

Teacher A stressed that she believes in giving the students the purpose of
learning, and this was one reason she set goals with them. She held conferences with each one to keep them informed of their progress, shared skills that caused them to struggle, and identified skills they needed to practice. This teacher is an advocate for the “Daily 5” literacy framework. She shared that she used it as a kindergarten teacher, and it helped with structure in the classroom. She stated that this framework allows the students to work independently on their own skills. She does include the use of technology while implementing the “Daily 5” center stations. Teacher A concluded her answer to this question by talking about how she felt she went from meeting growth to exceeding growth. She shared that she got more and more specific with what her student needs were and became more knowledgeable about how to meet those needs. She also used some of the strategies learned from Dr. Kennedy’s professional development in her classroom. One such strategy references posting clear learning targets, and Teacher A made a point to post her learning targets every morning. She admitted to posting these more during the 2018-2019 school year when compared with the 2016-2017 and 2017-2018 school years. Additionally, she started to unpack the learning targets with the students in 2018-2019. Table 3 lists the strategies she used during the 2016-2019 school years.
Table 3

Question 4: Strategies Used During Reading Instruction

<table>
<thead>
<tr>
<th>Participant</th>
<th>Strategies used during reading instruction</th>
</tr>
</thead>
</table>
| Teacher A   | • Specific and strategic grouping of students after analyzing beginning of year (BOY) reading data (grouped them by reading levels and weaknesses)  
• Explained BOY data to students and they set goals together for their middle of the year (MOY) assessment  
• Utilized the “Daily 5” literacy framework |
| Teacher B   | • Multiple forms of testing  
• Games utilized for engagement  
• Increased the use of technology during the 2016-2017 school year  
• Use of manipulatives for activities such as play-doh and items found outside |

The fifth question in the interview required the participants to reflect on strategies they used that they believed help them meet or exceed expected growth with their students. Table 4 provides the responses for both participants.

Table 4

Question 5: Specific Strategies Resulting in Meeting or Exceeding Growth

<table>
<thead>
<tr>
<th>Participant</th>
<th>Specific strategies resulting in meeting or exceeding growth</th>
</tr>
</thead>
</table>
| Teacher A   | • Differentiated reading groups  
• “Daily 5” literacy framework  
• Learning targets written and decomposed  
• Systematic phonics |
| Teacher B   | • Pre-assessment data used to guide instruction  
• Reading strategies  
  o Eagle Eye  
  o Lips the Fish  
  o Stretchy Snake  
  o Chunky Monkey  
  o Skippy Frog  
• Echo reading (every day)  
• Set goals with students |

Systematic phonics was a program used at the school where Teacher A worked.
She explained that the kindergarten teachers used the program, and her teacher assistant informed her about it. It was a scripted program that the school purchased, and it had over 100 lessons. She used it with the students, but she also had the teacher assistant use it with them. Teacher A believes that phonetics is the reason students struggle to read. She expressed the need for phonetics to be taught and students should know how to apply the rules.

The reading strategies shared by Teacher B contained catchy names for animals and each name referenced a different strategy. “Eagle Eye” encourages the students to look at the pictures while trying to read. “Lips the Fish” encourages the students to prepare to sound out the words they are reading. “Stretchy Snake” encourages the students to stretch out the sounds in words they do not know and blend them together. “Chunky Monkey” encourages the students to find small chunks of words they know to sound out bigger words. Last, the “Skippy Frog” encourages students to skip over a word they do not know and read more of the sentence for a clue about the unknown word.

Teacher B also used echo reading every day; she modeled reading for her students and they would read back to her.

The sixth interview question referenced the survey from Phase 1 of the study. I analyzed the survey results to find commonly used strategies for each group of participants. I then asked Teachers A and B how often they used the identified strategies. Table 5 shows the frequency of use for each participant. In the survey results, some strategies were commonly used for Group A but not for Group B. At the same time, some strategies were commonly used for Group B but not for Group A. This situation is denoted with “not applicable” in the table. Teacher A shared that some of her commonly
used strategies were implemented during her “Daily 5” centers. These strategies included word sorts, vocabulary cards, games, and utilizing student interests.

Table 5

*Question 6: Frequency of Strategy Use*

<table>
<thead>
<tr>
<th>Survey Question Number</th>
<th>Strategy</th>
<th>Frequency by Teacher A</th>
<th>Frequency by Teacher B</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Word sorts</td>
<td>Daily</td>
<td>Weekly</td>
</tr>
<tr>
<td></td>
<td>Vocabulary scavenger hunts</td>
<td>Not applicable</td>
<td>Weekly</td>
</tr>
<tr>
<td></td>
<td>Vocabulary cards</td>
<td>Weekly</td>
<td>Weekly</td>
</tr>
<tr>
<td></td>
<td>Multiple exposures</td>
<td>Daily</td>
<td>Weekly</td>
</tr>
<tr>
<td>6</td>
<td>Phonics strategies</td>
<td>Daily</td>
<td>Not applicable</td>
</tr>
<tr>
<td>7</td>
<td>Games</td>
<td>Daily</td>
<td>Weekly</td>
</tr>
<tr>
<td></td>
<td>Manipulatives</td>
<td>Daily</td>
<td>Daily</td>
</tr>
<tr>
<td></td>
<td>Card sets</td>
<td>Daily</td>
<td>Bi-weekly</td>
</tr>
<tr>
<td></td>
<td>Student interests</td>
<td>Daily</td>
<td>Weekly</td>
</tr>
<tr>
<td>9</td>
<td>Small group instruction</td>
<td>Daily</td>
<td>Daily</td>
</tr>
<tr>
<td></td>
<td>Blended learning</td>
<td>Daily</td>
<td>Bi-weekly</td>
</tr>
<tr>
<td>11</td>
<td>Paired reading</td>
<td>Daily</td>
<td>Every other day</td>
</tr>
<tr>
<td></td>
<td>Think alouds</td>
<td>Weekly</td>
<td>Every other day</td>
</tr>
<tr>
<td></td>
<td>Reciprocal teaching</td>
<td>Not applicable</td>
<td>Daily</td>
</tr>
<tr>
<td>12</td>
<td>Guided reading</td>
<td>Daily</td>
<td>Daily</td>
</tr>
<tr>
<td></td>
<td>Computer-based interventions</td>
<td>2-3 times per week</td>
<td>Weekly</td>
</tr>
</tbody>
</table>

Question 7 asked the participants to highlight the resources and programs they used during their reading instruction and whether or not they felt the resource/program contributed to student growth. Table 6 only lists the resources they believe contributed to student growth. Teacher B identified “Starfall” as a resource she used in the classroom but did not really feel it had an impact on student growth.
Table 6

*Question 7: Resources Used Contributing to Student Growth*

<table>
<thead>
<tr>
<th>Participant</th>
<th>Resources used contributing to student growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher A</td>
<td>• Tumblebooks</td>
</tr>
<tr>
<td></td>
<td>• Reading Wonders™</td>
</tr>
<tr>
<td></td>
<td>• Instructional assistant/teacher assistant</td>
</tr>
<tr>
<td>Teacher B</td>
<td>• Learning A-Z™</td>
</tr>
<tr>
<td></td>
<td>• Abcya.com™</td>
</tr>
<tr>
<td></td>
<td>• Readworks®</td>
</tr>
</tbody>
</table>

Teacher A provided detailed answers referencing resources used during her reading instruction. The Tumblebooks program allowed her to assign students eBooks to read, but she also allowed them to choose eBooks they were interested in reading. The Reading Wonders™ program has an online component that she used in addition to their differentiation strategies and leveled reading texts. Last, she made a point to say that her instructional assistant was a resource she had that contributed to student growth. Her assistant helped during instruction to include small group instruction with the students.

The last interview question referenced challenges the teachers faced during their reading strategies and how they dealt with those challenges to continue to promote growth with their students. Table 7 shares the challenges each teacher identified.
Table 7

**Question 8: Challenges Faced During Reading Instruction**

<table>
<thead>
<tr>
<th>Participant</th>
<th>Challenges faced during reading instruction</th>
</tr>
</thead>
</table>
| Teacher A   | • Interruptions and distractions in the classroom  
              • Having students with different ability levels  
              • More and more things to do and less time to do them |
| Teacher B   | • Lack of parent involvement  
              • Low self-esteem of lower-skilled students |

Teacher A identified interruptions in the classroom as her first challenge. She explained that it was difficult to have the students’ full attention as they were being distracted by things happening in the classroom, especially during the “Daily 5” center activities. She minimized these interruptions and distractions by realizing she had to teach the structure of the “Daily 5” to include the expectations. She taught each station one at a time and made sure stations were engaging so they were not easily distracted.

Having students with many different ability levels was the second challenge identified by Teacher A, and she admitted that this was overwhelming at times. She decided to overcome this challenge by getting to know each individual student and determine what was causing their weaknesses. Once their weaknesses were understood, she could then determine what they needed to help them be successful. Differentiation was the strategy that made this possible.

Teacher B identified lack of parent involvement as her first challenge. She explained that they would not use activities that were sent home to help reinforce skills. She overcame this challenge by contacting parents with phone calls and/or text messages to remind them of the purpose of the activities sent home. Low self-esteem of the lower
skilled students was the second challenge Teacher B identified. The students would get frustrated thinking they could not read. They would often say “I can’t”; and when they did, she had them write those words down and put them in a mason jar. After about a month, they went on the playground and buried those “I can't” statements. Students would then remind each other that they “CAN” do what was asked, and this helped them with their low self-esteem.

As Teacher A and I finished our interview, she shared with me a closing thought on assessments. She often “reminds teachers not to look at assessments as testing, but look at it as an instructional piece showing you what the students know and do not know.”

Summary

This chapter presented all of the data collected for Phase 1 and Phase 2 of this study. Phase 1 of the study was the implementation of the surveys to determine reading strategies used by K-2 teachers during the 2016-2017, 2017-2018, and 2018-2019 school years. There were two groups of teachers who took the surveys. Group A was teachers who met or exceeded expected growth in EVAAS® during the years in question for 2 or more years. Group B was teachers who did not meet growth or met/exceeded growth for only 1 year during the years in question. Response percentages were displayed in figures to show the comparisons for each group of participants. Phase 2 of the study was the interviews, and these served the purpose of getting more detailed responses to the survey results from Phase 1. Interview responses were displayed in tables.
Chapter 5: Discussion

Introduction

The purpose of this explanatory sequential mixed methods study was to identify K-2 reading strategies that promote student growth in the classroom. Phase 1 of this research involved the distribution of surveys to K-2 reading teachers who had EVAAS® teacher effectiveness data for the 2016-2017, 2017-2018, and/or 2018-2019 school years. Twelve K-2 teachers completed the survey. Phase 2 of this research was the facilitation of interviews to gain more detailed information on some of the survey questions in Phase 1. Two of the 12 teachers agreed to participate in the interview for the study.

This chapter discusses the major findings from the surveys and interviews as well as implications for the field of reading education. Limitations and delimitations are also presented. The chapter concludes with recommendations for future studies on the topic of EVAAS® teacher effectiveness data and student growth strategies.

Data Analysis Discussion

In preparing to analyze the data results for this study, it is important to understand the details of the EVAAS® growth status for teachers who were given the opportunity to participate. In Chapter 3, the sample selection for this study was identified as all K-2 reading teachers who had at least 1 year of EVAAS® data for the 2016-2017, 2017-2018, and/or 2018-2019 school years. Also in Chapter 3, two groups of teachers were identified for Phase 1 of the study. Group A was teachers who met or exceeded growth for 2 or more years from 2017-2019. Group B was teachers who met/exceeded growth 1 year or did not meet growth during these years. The following sections review the growth statistics for the number of teachers who did not meet growth, met growth, and exceeded
growth during the years in question. Additionally, the percent of the participants who met or exceeded growth is discussed for each group of teachers.

**Group A Participants**

There were a total of 30 teachers in Group A who qualified and were accessible for participation in this study. Of those 30 teachers, 15 of them met expected growth with their students during the years in question. Two of them exceeded growth with their students. Several of them, 13 to be exact, had a combination of meeting growth or exceeding growth with their students during the years in question. Table 8 shows a visual representation of the growth status for teachers in Group A who were invited to participate in the study.

**Table 8**

*Detailed Growth Status for Group A During 2017-2019 School Years*

<table>
<thead>
<tr>
<th>Growth status</th>
<th>Number of teachers meeting/exceeding for 2 of the 3 years</th>
<th>Number of teachers meeting/exceeding for all 3 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Met expected growth</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>Exceeded expected growth</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Met or exceeded growth</td>
<td>5</td>
<td>8</td>
</tr>
</tbody>
</table>

Of the 30 teachers invited to participate in the study, 12 completed the survey. Based on the growth status data analyzed, 100% of those completing the survey met or exceeded growth with their students for 2 or 3 years between 2017-2019. The strategies they implemented during their reading instruction are considered an integral part of the data for this study.
**Group B Participants**

There were a total of 13 teachers in Group B who qualified and were accessible for participation in this study. Of those 13 teachers, eight met expected growth with their students for 1 of the years between 2017-2019. One of them exceeded growth with their students. The remaining four teachers either did not meet growth or had a combination of meeting growth and not meeting growth. Table 9 is a visual representation of the growth status for teachers in Group B who were invited to participate in the study.

**Table 9**

*Detailed Growth Status for Group B During 2017-2019 School Years*

<table>
<thead>
<tr>
<th>Growth Status</th>
<th>Number of teachers meeting/exceeding/not meeting for 1 of the 3 years</th>
<th>Number of teachers meeting/exceeding/not meeting for 2 of the 3 years</th>
<th>Number of teachers meeting/exceeding/not meeting for 3 of the 3 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Met expected growth</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exceeded expected growth</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Did not meet growth</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Met growth and did not meet growth</td>
<td></td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

Of the 13 teachers invited to participate in the study, three completed the survey. Based on the analysis of the growth status data, 69.2% of those invited to complete the
survey met or exceeded growth with their students for 1 year during 2017-2019. This equates to nine of the 13 teachers in Group B. The one teacher who exceeded expected growth accomplished this during the 2016-2017 school year. After that year, she retired from teaching and became a substitute teacher in the district. This teacher was a participant in the interview process for Phase 2 of the study.

Identifying one teacher from Group B as taking the survey and exceeding growth with her students led to a need to further analyze the growth status data. A further analysis showed eight teachers invited to participate in the study met expected growth for 1 year during 2017-2019; this equates to eight teachers of the remaining 12, or 67%. This percentage is considered when discussing the survey results and findings. Because the surveys were anonymous, there is no way to determine if the remaining two survey respondents were teachers who met growth with their students or did not meet growth. This topic is discussed further under recommendations for future research.

**Summary of Findings**

This study has one main research question: “What strategies are utilized by kindergarten, first-, and second-grade teachers whose data show consistent growth with their students?” The findings for this research are organized by answering the supporting questions to the main research question for the study.

**Research Question 1a**

The first supporting question for this research is, “What strategies did K-2 teachers utilize in their classrooms during reading instruction for the 2016-2017, 2017-2018, and 2018-2019 school years as identified through the surveys?” Figures in Chapter 4 highlight the various strategies identified by survey participants from both groups of
teachers. Since the main research question references strategies used by teachers whose data show consistent growth with their students, it is important to note that the Group A responses represent teachers with consistent growth. I will compare their responses with the responses from Group B to identify strategies implemented by Group A and not implemented by the majority of Group B.

Allowing students to be a part of goal setting for themselves is a strategy that 41.67% of Group A teachers stated they implemented during their reading instruction. In Chapter 2, this strategy was identified as one that has an effect size of 1.21. No teachers in Group B stated they implemented this strategy.

There were some strategies under vocabulary instruction that gained responses from Group A and not Group B. The first was vocabulary self-awareness, and 33.3% of the teachers from Group A stated they implemented this strategy. Additionally, vocabulary self-selection was a strategy identified by 25% of Group A.

Digital reading programs were categorized under the blended learning strategy, and 45.45% of the teachers from Group A identified programs they did not see listed as answer choices in the survey. Zearn™ was listed by three different Group A teachers. Freckle™ was listed by one teacher and identified as an answer choice by another teacher within the survey. Moby Max™, Reading A-Z™, Readworks®, Accelerated Reader™, Tumblebooks, Prodigy Math™, and ConnectEd™ were other programs listed by Group A teachers. It is important to note that Prodigy Math™ is not a reading resource. One last program marked by Group A teachers and not by Group B teachers was i-Ready™. In Chapter 2 of this research, i-Ready™ was a program identified under blended learning. This program was utilized by some elementary schools in the Enlarged City School
District in Middletown, New York. Those elementary schools implemented blended learning and showed more growth after using the i-Ready™ program and other digital programs.

There were many other strategies identified by Group A teachers throughout the survey, but many of them were also identified by Group B teachers. Since Group B teachers did not have consistent growth data for the years in question, it is unclear as to whether the strategies would be representative of strategies promoting student growth.

**Research Question 1b**

The second supporting question for this research is, “What strategies did K-2 teachers meeting or exceeding growth say they utilized in their classrooms to show high levels of achievement during the 2016-2017, 2017-2018, and 2018-2019 school years as identified through the interviews?” Questions 5 and 7 of the interview were instrumental in answering this question. Question 5 specifically asked the participants what strategies they felt helped them meet and/or exceed expected growth with their students. Question 7 gave them the opportunity to share any resources they felt promoted student growth in their classroom.

There were two teachers who agreed to participate in the interview process. Chapter 4 identifies these teachers as Teacher A and Teacher B. Teacher A was a participant from Group A, and she met growth in 2016-2017 and 2017-2018. In 2018-2019, this teacher exceeded expected growth with her students. She was the perfect example of a teacher consistently meeting growth. Teacher B was a participant from Group B, and she was the one teacher mentioned earlier as exceeding expected growth with her students in 2016-2017. She retired after this school year; and as a result, there
was no EVAAS® data for her in 2017-2018 and 2018-2019. Additionally, because the years in question for this study are from 2017-2019, I did not have access to data prior to the 2016-2017 school year. She did have 25 years of experience as an educator prior to retiring, and she stated that she exceeded growth for several years with her students.

Teacher A listed four strategies she felt promoted student growth in her classroom: differentiated reading groups, the “Daily 5” literacy framework, learning targets written and decomposed, and the use of systematic phonics. Differentiation, setting goals/learning targets, and phonics instruction are all strategies identified in Chapter 2 of this research as strategies that have an effect size of 0.49 or greater. The “Daily 5” literacy framework was not a framework mentioned in Chapter 2; however, some components of the framework were mentioned in the research. The “Daily 5” literacy framework has five tasks students choose from when working during their reading instruction: read to self, work on writing, read to someone, word work, and listen to reading (The Daily Cafe©, 2020a). Writing and word work were mentioned in Chapter 2 under the reading interventions subheading, more specifically, as a part of guided reading. Read to someone means reading to a partner and is similar to the paired reading strategy discussed under the comprehension skills and programs subheading. The Daily Cafe© (2020) explained that listen to reading is a time where students can get on a device and listen to stories using “listen-to-reading” websites. There are a total of 14 different websites listed as a resource for teachers to use during this time, and two of them are Readworks® and Tumblebooks (The Daily Cafe©, 2020b).

Teacher B listed four strategies she believed promoted student growth in the classroom. She used pre-assessment data to guide instruction, reading strategies, echo
reading, and setting goals with her students. Setting goals with students and using pre-assessment data are two strategies mentioned in Chapter 2 of this research. Echo reading is when the teacher models reading for the students and has them read back to her. This strategy falls under the category of direct instruction, and this was another strategy discussed in Chapter 2. Reading strategies used by Teacher B included Eagle Eye, Lips the Fish, Stretchy Snake, Chunky Monkey, and Skippy Frog. These strategies are used to help students with decoding and comprehension. Decoding is not a topic mentioned in Chapter 2, but comprehension skills and programs is a topic discussed in further detail. Fisher et al. (2017) stated the comprehension programs have an average effect size of 0.60.

Teacher A identified three resources she felt promoted student growth in her classroom. She identified Tumblebooks and Reading Wonders™ as digital programs that helped her meet and exceed expected growth with her students. She also stated that her instructional assistant was a resource during reading instruction because the assistant was able to help with instruction as well as work with small groups.

Teacher B identified three digital programs she believed helped her exceed expected growth with her students: Learning A-Z™, abcyacom™, and Readworks®. Just as Teacher A identified her instructional assistant as a resource in her classroom, Teacher B said the same.

It is important to note that Readworks® and Tumblebooks are mentioned as resources used by both of the teachers participating in the interview. Additionally, these programs are listed in the survey responses for Phase 1 of this research, and they are also listed as resources in the “Daily 5” literacy framework.
Implications for Education

This research study was written with the hopes that educators at various levels can use some of the information to become better teachers, better coaches, instruct elementary school education candidates, and/or provide professional development. Reading teachers in the K-2 classrooms can possibly become better teachers by implementing some of the strategies identified in this study, so they, too, can meet and/or exceed growth with their students. Principals, instructional coaches, and curriculum specialists can use the information in this research while being instructional leaders and coaching K-2 teachers with the strategies identified. Principals and district administrators can use the digital resources identified as possible programs to purchase for instructional purposes. Faculty in teacher preparation programs can use this research as they instruct our future K-2 reading teachers. Last, this research can be utilized as information for professional development with K-2 reading teachers. The purpose of this research was to identify reading strategies used by K-2 reading teachers meeting and exceeding growth in EVAAS and make the information available to any educator who would benefit from the information.

Limitations

There were several limitations with this study. One limitation is the experience of the teachers who were surveyed and interviewed. Survey responses included teachers with 4-9 years of experience and 10+ years of experience. One of the interview participants had 25 years of experience. The willingness of teachers to participate in the study is a limitation. The survey had more respondents than the interviews, with 12 of the 30 responding. Only two teachers agreed to interview, which resulted in a small sample
of information to analyze. This limitation weakens the validity of the research. My role as a principal in the district was a limitation because I could not invite the teachers I supervised to participate in the study. Their participation could have increased my data sample for both phases of the research. The North Carolina EVAAS® procedure for producing growth data for kindergarten teachers is a limitation because the collection of data is different when compared to first- and second-grade teachers. Kindergarten teachers have growth data based on middle-of-year and end-of-year assessment data. First- and second-grade teachers have growth data based on beginning-of-year and end-of-year assessment data. One last limitation references Interview Questions 5 and 7. These questions asked the interviewees to identify strategies and resources they believed helped them meet and/or exceed expected growth in EVAAS®. Their answers could be interpreted as opinions and not as valid due to the minimal number of interview participants.

**Delimitations**

Time constraints produce two delimitations for this study. The first delimitation is only K-2 teachers were asked to participate. There is growth data in EVAAS® for Grades 3-5 reading teachers, but including them in the study would have increased the time needed to complete the research. The second delimitation involves the use of only one district in the study. If time was not an issue, K-2 reading teachers in other districts could have been invited to participate in both phases of the research. This would have increased the sample size and potentially increased the data results for the surveys and the interviews. More data would make the study more valid.
**Recommendations for Future Research**

There are five recommendations for future research on the topic of reading strategies promoting student growth as reflected in the North Carolina EVAAS® teacher effectiveness data. The first recommendation is to open up the study to more districts as mentioned above in the delimitations. It would be interesting to see what strategies K-2 reading teachers are using in their classrooms across the state of North Carolina. Another recommendation is similar to the first, in that the sample size could be increased by inviting Grades 3-5 reading teachers across the state of North Carolina to participate in the study.

Conducting this study when classroom observations can be a part of the data collection process would be another recommendation. Observations would serve as a third data point that could be used when triangulating the data results. This recommendation would require more time to complete the research because observations would have to be scheduled during the school year and when the nation is not going through a pandemic.

A fourth recommendation is to have a third group of teachers in the study. The additional group would be those teachers who were a part of Group B who met or exceeded expected growth in EVAAS® for 1 year only. As I found during my interview with Teacher B, she only had 1 year of EVAAS® data because of her retirement. She stated that she exceeded growth with her students prior to the 2016-2017 school year, so she would have been identified as a teacher consistently meeting or exceeding growth. Teachers who did not meet growth or had a combination of meeting growth and not meeting growth would be in their own group with this recommendation. As a result, the
new study would have a Group A, Group B, and Group C.

The last recommendation for future studies would be to conduct a similar study again during the fall of 2023 using EVAAS® data for 2020-2021, 2021-2022, and 2022-2023. As this research is being written in 2020, districts in the state of North Carolina are currently allowed to choose their assessment platform for Grades K-3. It would be interesting to see if the strategies identified in this study continue to remain effective in promoting student growth in 2023, especially with the use of different assessment platforms. This research analyzed EVAAS® data results using assessment data from mCLASS through Amplify™.

Summary

Concluding this research study leads to a document that can be used by other educators as we learn how to ensure our K-2 teachers promote student growth in their reading classrooms. The teachers who participated in this study took the time to add to this body of research as they know student growth is an important topic in education. The strategies presented in the findings of this study are worth looking into and trying in our K-2 classrooms. Teachers who are consistently meeting and/or exceeding growth are doing great things in their classrooms, and they should not go unnoticed. All K-2 teachers need to be aware of the strategies in this study so all of our students are given the opportunity to grow in their reading abilities and become better readers.
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Appendix A

Permission to Conduct Research in the District
Permission to Conduct Research

The permission below comes from the superintendent of the school district where the research is taking place. I emailed him about my research study and asked if I had his permission to conduct the research within our district. He granted me the permission to move forward. Please see email communication below.

Mar 28, 2020, 12:05 PM

Dr. Robert

Permission granted!

Dia Collins

On Sat, Mar 28, 2020, at 10:49 AM Dia Collins wrote:

Good morning Dr. [Redacted].

As you know, I am conducting research on instructional strategies used by K-2 reading teachers. The title of my dissertation is "Meeting and Exceeding Expected Growth in EVAAS: A Study of the Strategies Used by K-2 Reading Teachers". As I prepare to submit my IRB application, I will need permission from you to conduct my research at five out of the six primary schools in our district. I will not be using teachers at my school since I am the principal.

My original plan was to observe K-2 teachers at their schools, but now that we are in the middle of COVID-19, I will be sending them surveys referencing strategies they use in their classroom. I will also attempt to interview those that agree, preferably face-to-face, in their classrooms. Again, due to COVID-19, if the face-to-face interviews cannot happen, then I will attempt to interview them using Zoom or Google Meet.

With all of this said, may I have your permission to conduct this research within our district?

Respectfully submitted,

Dia Collins Thomas
Appendix B

IRB Approval
Ms. Thomas,

Your IRB Application for the Expedited research project titled “Meeting and Exceeding Expected Growth in EVAAS: A Study of the Strategies Used by K-2 Reading Teachers” has been approved, effective May 5, 2020. It has been assigned an expiration date of May 4, 2021, and an IRB file number of 20042401X.

Please be aware that if you need to continue your study beyond the Expiration Date, you must submit a Request for Continuance (http://www.gardner-webb.edu/Assets/gardnerwebb/academics/review-board/irb-request-research-continuance1.pdf) prior to that date.

Best wishes for a productive investigation!

Kathi
Office Manager
ORIC Administrative Assistant
Gayle Bolt Price School of Graduate Studies
Appendix C

Informed Consent – Online Survey
Gardner-Webb University IRB

Informed Consent Form for Online Survey

Title of Research Study:
Meeting and Exceeding Expected Growth in EVAAS:
A Study of the Strategies Used by K-2 Reading Teachers

The purpose of this research is to identify strategies that result in K-2 reading teachers meeting and exceeding growth in EVAAS. As a participant in the study, you will first be asked to complete an anonymous survey referencing the instructional strategies you used from 2017-2019 during your reading instruction. You will then have the opportunity to complete an interview as phase two of the study. The interview serves the purpose of getting more details on the strategies utilized in the K-2 reading classrooms. You may choose to only complete the survey or you may choose to do both the survey and the interview. It is anticipated that the study will require about 30-45 minutes of your time. The survey is estimated to take 10-15 minutes. The interview is estimated to take 20-30 minutes. Participation in this study is voluntary. You have the right to withdraw from the research study at any time without penalty. You also have the right to refuse to answer any question(s) for any reason without penalty. The information that you give in the study will be handled confidentially. Your data will be anonymous which means that your name will not be collected or linked to the data. There are no anticipated risks in this study. You will receive no payment for participating in the study. You have the right to withdraw from the study at any time without penalty by exiting the survey. Data from this study will not be used or distributed for future research studies.

If you have questions about the study, contact:
Researcher’s name: Dia Collins Thomas
Researcher telephone number: [Redacted]
Researcher email address: [Redacted]

Faculty Advisor name: Dr. Melessa Widener
Faculty Advisor telephone number: [Redacted]
Faculty Advisor email address: [Redacted]

Dr. Sydney K. Brown
IRB Institutional Administrator
Telephone: [Redacted]
Email: [Redacted]

Clicking the link below to continue on to the survey indicates your consent to participate in the study:  https://www.surveymonkey.com/r/C3V6HDF

If you are not 18 years of age or older or you do not consent to participate, please close this window.
Appendix D

Survey Protocol and Questions
Survey Questions

Strategies Used by K-2 Reading Teachers

By: Dia C. Thomas

1. How many years have you been a classroom teacher?
   - 0-3
   - 4-10
   - 10+

2. What grade are you currently teaching?

3. Questions 3-14 refer to instructional strategies that you may have used during your READING INSTRUCTION for the 2016-2017, 2017-2018, and/or 2018-2019 school years. Reflect on goal setting. Did you implement any of the strategies below? Mark all that apply.
   - Clear learning targets that are posted
   - Learning targets that are communicated to students
   - Students are a part of setting goals for themselves
   - Other: ________________________________
   - None of the above

4. Reflect on direct instruction for 2017-2019. Did you implement any of the strategies below? Mark all that apply. (Note: Direct instruction is also known as whole-class interactive teaching.)
   - Modeling lessons (providing examples)
   - Monitoring student practice (guided practice)
   - Independent activities for students (independent practice)
   - None of the above

5. Reflect on vocabulary instruction and vocabulary programs for 2017-2019. Did you implement any of the strategies below? Mark all that apply.
   - Vocabulary self-awareness (students assess their knowledge of words in their reading and complete a self-awareness chart based on what they know and do not know; they update the chart as the reading is completed and they can write a definition and/or example of the words)
   - Vocabulary self-selection (students choose words they think are important for themselves and/or for the class; words can come from television, internet, or interactions with others)
   - Vocabulary scavenger hunts/relia (students are given words and they must find examples of the words)
   - Word sorts (ex: classifying words based on meaning, word families, etc.)
   - Vocabulary cards (ex: four quadrants for word, definition, antonym, illustration)
   - Multiple exposures to words (ex: having students repeat the words several times throughout a lesson)
   - Other: ________________________________
   - Phonemic awareness (manipulate & segment word sounds)
   - Letter knowledge (learning name & shapes of letters)
   - Sound/symbol relationships (match sounds to letters or combinations of letters)
   - None of the above

   - Set or hook at the beginning of the lesson (capture students’ attention)
   - Closure or anchor at the end of the lesson (engaging review activity)
   - Computer simulation drag & drop activities (using computer or interactive boards)
   - Games (where students are in pairs or groups correcting each other)
   - Manipulative use (ex: tiles, counters, plastic letters, real letters, Elkonin boxes)
   - Card sets (to sort, match, group, rank or sequence cards)
   - Using student interests and choices in lessons & activities
   - Project-based learning activities
   - Other: _________________________________________
   - None of the above

   - Provide specific/detailed feedback
   - Provide feedback on what students did well
   - Computer feedback with explanations & remediation (through computer programs)
   - Formative assessments (during lessons to provide feedback)
   - Other: _________________________________________
   - None of the above

   - Small group instruction (ex: grouped by ability levels)
   - Content differentiation (ex: various methods for instruction)
   - Process differentiation (ex: students work at different speeds, different levels of complexity with work)
   - Product differentiation (ex: students have options on how to show what they have learned)
   - Environmental differentiation (ex: classroom with quiet areas, collaboration areas, movement areas, etc.)
   - Blended learning (use of digital programs and traditional teaching strategies)
10. If you implemented blended learning, what reading programs did you utilize during the 2016-2017, 2017-2018 and/or 2018-2019 school years? Mark all that apply. (Programs listed are adaptive programs resulting in personalized learning.)
   - Lexia Reading
   - Achieve3000
   - i-Ready
   - myON Reader
   - IXL Learning
   - Reading Eggs
   - Front Row (now known as Freckle)
   - Compass Learning
   - Education City
   - Other: ______________________________________
   - None of the above

11. Reflect on comprehension skills and programs for 2017-2019. Did you implement any of the strategies below? Mark all that apply.
   - Close reading
   - Reciprocal teaching
   - Paired reading (mixed abilities paired together; each act as coach & player)
   - Metacognitive comprehension strategies (helping students understand their learning and thinking processes)
   - Think alouds
   - Other: ______________________________________
   - None of the above

   - Guided reading with small groups
   - Tutoring programs
   - Computer-based interventions
   - Other: ______________________________________
   - None of the above

13. Reflect on cooperative learning for 2017-2019. Did you implement cooperative learning strategies during the three years in question?
   - Yes
   - No

14. Reflect on data analysis for 2017-2019. Did you use assessment data to do any of the following below? Mark all that apply.
   - Work with students one-on-one focusing on weaknesses found in data
   - Work with students in small groups focusing on weaknesses found in data
   - Other: ______________________________________
None of the above

15. Thank you for taking the time to complete phase one of this study. Please consider working with me on phase two of the study, the interview. The interview would take place either face-to-face or via Zoom and should last between 20-30 minutes. The purpose of the interview is to discuss some of the strategies identified in more detail, such as frequency and duration. There will be a couple of other questions as it pertains to meeting growth in EVAAS. Are you willing to participate in phase two of the study, the interview?
   o Yes. Please click on this external link so your survey results remain anonymous. The link will request your name and contact information so we can set up a date and time for the interview. The link is https://forms.gle/YmonKuwvXA5q3w3Am8
   o No, not at this time.

This concludes the survey.
Appendix E

Form for Participants Agreeing to Interview
Form for K-2 Teachers Agreeing to Interview with DC Thomas

Please complete the items below so I can contact you for phase two of this research study. Thanks for agreeing to participate in this interview process.

* Required

Name *

_____________________________________

Best days to complete the interview? *
  o Monday
  o Tuesday
  o Wednesday
  o Thursday
  o Friday
  o Saturday
  o Sunday
  o ANY DAY

Best times to complete the interview? *
  o Morning
  o Afternoon
  o Evening

Please provide the best way to contact you. *

________________________________________________________________________
________________________________________________________________________
Appendix F

Informed Consent – Interview
Gardner-Webb University IRB
Informed Consent Form

Title of Study
Meeting and Exceeding Expected Growth in EVAAS: A Study of the Strategies Used by K-2 Reading Teachers

Researcher (name and role/department)
Dia Collins Thomas
EdD Candidate with Gardner Webb University

Purpose
The purpose of this research is to identify instructional strategies used by K-2 reading teachers continuously meeting or exceeding expected growth in EVAAS. Once these strategies have been identified, they can be shared with other K-2 reading teachers who struggle to meet or exceed expected growth in EVAAS.

Procedure
What you will do in the study:
During phase one of this study, the anonymous survey, you were given the opportunity to participate in phase two, the interview. If you agree to participate in the interview you will help me to understand some of the strategies identified in the surveys in more detail, such as frequency and duration, if applicable. Interviews will be face-to-face or digitally using Zoom. Face-to-face interviews will be audio-recorded and digital interviews will be digitally recorded so I can go back to the interviews during my data analysis if needed. Since we are in the middle of COVID-19, face-to-face interviews will be a last resort if our interview date is during the pandemic. If you agree to participate in the interview, please know that you can stop at any time.

Time Required
It is anticipated that the study will require about 45 minutes of your time. Phase one, the survey, should take 10-15 minutes to complete. Phase two, the interview should take 20-30 minutes to complete.

Voluntary Participation
Participation in this study is voluntary. You have the right to withdraw from the research study at any time without penalty. You also have the right to refuse to answer any question(s) for any reason without penalty. If you choose to withdraw, you may request that any of your data which has been collected be destroyed unless it is in a de-identified state.

Confidentiality
Data collected through the interviews will not be made available to other parties for further research. After the data collection period has ended, you will be assigned a number so your name is not tied to the interview data collected. Your name will not be used anywhere in the study. Your school will be assigned a letter to further assist with
anonymity. The master list of teacher participants with the code numbers will be locked in a file cabinet in my office. Data results will be stored and secured at my personal home behind locked doors. Audio recordings and/or digital recordings will be password protected. All data will be kept for three years and destroyed after that time. The master list of teachers will be shredded. Survey responses collected digitally and responses to interview questions documented in a Google spreadsheet will be deleted. Audio and/or digital recordings of the interviews will be deleted from the recording app and/or the computer.

Conflict of Interest
As a principal in the district where the study is taking place, if you are a teacher under my supervision, you are not eligible to participate in this study to prevent bias and any conflict of interest. You are eligible to participate in a pilot of the study where the data collected will not be used in the study.

Risks
There are no anticipated risks in this study.

Benefits
There are no direct benefits associated with participation in this study. The study may help us to understand instructional strategies used by K-2 teachers who are meeting and exceeding growth in EVAAS. As a result, this study may become a resource for all K-2 teachers as they strive to meet and exceed growth each year. The Institutional Review Board at Gardner-Webb University has determined that participation in this study poses minimal risk to participants.

Payment
You will receive no payment for participating in the study.

Right to Withdraw From the Study
You have the right to withdraw from the study at any time without penalty. Additionally, if you choose to withdraw from the study, your audio tape or digital interview will be destroyed.

How to Withdraw From the Study
- If you want to withdraw from the study, you can simply let me know. If you submitted the survey, you can contact me and I will delete your survey results. If we are in the interview process, you can stop me during the interview to let me know that you want to withdraw. There is no penalty for withdrawing.

If you have questions about the study, contact: (List all researchers and contact information)
Researcher’s name: Dia Collins Thomas
Student Role: EdD Candidate
School/Department: Gardner-Webb University
Researcher telephone number: [redacted]
Researcher email address: [redacted]

Faculty Advisor name: Dr. Melessa [redacted]
School/Department, Gardner-Webb University
Faculty Advisor telephone number: [redacted]
Faculty Advisor email address: [redacted]

If the research design of the study necessitates that its full scope is not explained prior to participation, it will be explained to you after completion of the study. If you have concerns about your rights or how you are being treated, or if you have questions, want more information, or have suggestions, please contact the IRB Institutional Administrator listed below.

Dr. Sydney [redacted]
IRB Institutional Administrator
Gardner-Webb University
Telephone: [redacted]
Email: [redacted]

Voluntary Consent by Participant
I have read the information in this consent form and fully understand the contents of this document. I have had a chance to ask any questions concerning this study and they have been answered for me. I agree to participate in this study.

_________________________________   Date: ______________________
Participant Printed Name   

_________________________________   Date: ______________________
Participant Signature   

You will receive a copy of this form for your records.
Appendix G

Interview Protocol and Questions
Interview Protocol and Questions

Researcher: Dia Collins Thomas

**Interviewer’s introduction statement referencing protocol**

Thank you for agreeing to interview with me today. The interview should take between 20 - 30 minutes. We will discuss reading strategies you use during your reading instruction that you feel promote student growth. I hope to identify reading strategies used by K-2 reading teachers who promote student growth and be able to share them with other K-2 reading teachers in the district and state.

During our interview, I will notate your responses digitally using google forms to make sure that all of your feedback is captured. This interview will also be recorded and the recording will serve the purpose of verifying that all information was captured accurately. All names will be assigned numbers to ensure anonymity of the participants. All data collected will be destroyed after the conclusion of the study.

As a reminder, you were emailed a consent form for this interview. By returning the consent form to me, you acknowledged your willingness to participate. You can choose to stop this interview or discontinue with this study at any time by letting me know.

At this time, I will begin recording the interview. **Begin Recording**

**Interview questions**

1. How many years of experience do you have as a classroom teacher?

2. What grades did you teach from 2016-2017 to 2018-2019?

3. Have you attended any professional development over the last three years that related to classroom strategies promoting student growth? If so, can you tell me the name of the professional development you attended?

4. I would like to take a moment to review the school years you met or exceeded expected growth from 2016-2017 to 2018-2019. Do you recall implementing the same strategies with your students each year or did you implement any new strategies over these years?

5. For each year that you met or exceeded expected growth with your students, what specific strategies did you utilize in your classroom that you believe helped you meet this accomplishment? **May split this question into three years.**

6. I would now like to review some of the commonly used strategies identified in the survey results for this study. Can you let me know how frequently you use these strategies, if applicable to you? (daily, weekly, biweekly, monthly, etc.)

7. What resources did you/do you use during your reading instruction and do you feel that those resources contribute to student growth?

8. What challenges did you/do you face during your reading instruction if any? How did you overcome those challenges to continue to promote student growth?
Interviewer’s closing statement

This concludes the interview today. Thanks again for agreeing to participate in this important study. Please remember that you will have access to the results at the conclusion of the study if you want them. Do not hesitate to contact me if you have any questions and I wish you a great rest of the school year.
Appendix H

Survey Questions Feedback from Dissertation Chair
Hi Dia!

The dissertation survey questions look good. I have moved the other two documents to my drive and will look over them when I get home later. I can tell you have been working hard. I have received signatures from Dr. [REDACTED] and Dr. [REDACTED], so when Dr. [REDACTED] signs we will have the approval all ready once you are finished.

Keep up the great work. Be in touch soon.

Lesa
Appendix I

Interview Questions Feedback from Committee and District Administration
Hi Dia! You certainly are a worker!!!!

Question 4 sort of leads itself to a yes or no answer. Your research questions need to be crafted to get the participants to discuss so your information will be thoughtful and purposeful. Questions 1, 2, and 3 are all one word answers for the most part so the only real conversation questions will be 4 and 5. Also, when you refer to strategies you might need qualifying words to get the context of strategies across. I am wondering are you specifically looking at only instructional strategies, lesson design strategies, lesson delivery strategies, differentiation strategies, etc.? What follow up questions might you use so that you are certain all participants' responses are along the lines of what you are searching to answer?

My dissertation was entitled, The Impact of Instructional Rounds Professional Development on Teacher Self-Efficacy, and I had one research question which was, "What is the impact of instructional rounds professional development on teacher self-efficacy?" but my interviews contained seven questions. I will add them as an attachment for you to see.

Just wanted to give you an example of what I mean.

Take care,

Lesa
Dr. Jason Atkinson

to me

These look great. You might also want to ask a question about the resources that they use and if they felt that they did or did not contribute to student growth. You might want to also what challenges were faced and how they overcome those challenges to promote student growth. Are you looking at one specific site or across the district for participants?

--
Dr. Jason B. Atkinson

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Bruce Boyles, Ed.D

to me

Dia,

Perhaps it is implied but do you want to know what specific staff development they may have had? Right now, this is just a yes or no question. If that is what you want, it is fine but if you want additional information about the professional development then you need to expand the question. Otherwise they questions look appropriate.

Bruce Boyles, Ed.D