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Teachers' Use of Third Grade Reading Benchmark Assessment Data

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This is to certify that the doctoral study by

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has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
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Abstract

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MA, Columbia College 2008

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Project Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

Third grade reading teachers at the local setting are not consistently using formative benchmark data to improve student reading performance, creating a gap in practice. This gap in practice may be due to teachers' lack of capacity to use the data to make changes to their instructional practices. The purpose of this qualitative study was to explore how third grade reading teachers are using data from reading benchmark assessments to improve student reading performance. This project study was guided by two research questions (RQs). RQ 1 addressed how third grade teachers are using reading benchmark assessment data to improve student reading performance. RQ 2 addressed specific instructional strategies that third grade teachers are using from reading benchmark assessment data to effectively improve student reading performance. Data-driven decision making (DDDM) was the conceptual framework that was the foundation for this study. This basic qualitative design for this project study included 13 participants. Data were collected through open-ended semistructured interviews, and qualitative analyses were conducted through open coding and thematic analysis. According to the findings of this study, immediately analyzing data, collaboration, and data driven instruction were the themes that emerged guided by RQ 1. Emerging themes for RQ 2 included test taking strategies, modeling, and guided reading. Leadership in this district may use these findings to make decisions about the effectiveness of teachers' use of these benchmark assessments or the data gathered from the assessments to impact student reading proficiencies. This research may provide specific instructional strategies used through the DDDM process that increases student reading proficiency. These findings could possibly yield results that have positive social change implications for reading achievement.

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Dedication

I would like to dedicate this work to my family, Clint, Cameron, Jordan, Eli, and my momma. Thanks so much for your understanding, encouragement, and love. I would never have been able to complete this journey without your support. I am so blessed. I would also like to dedicate this work to my daddy who passed away in 2013. He was my biggest supporter and always so proud of me. Additionally, I dedicate this work to my dear friend and mentor, Laurie Swift. Thank you so much for your guidance, excitement, and encouragement. I am better for knowing you.

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I would like to thank God for allowing me the opportunity to reach this goal. I pray that wherever this door leads that I will honor Him. I would like to thank my chair, Dr. Michael Vinella and my second chair, Dr. Sunddip Aguilar. Thank you so much for your guidance, support, and encouragement. I will be forever grateful to you both. I would also like to thank my family and friends for their patience and encouragement. Additionally, I would like to thank my administrators and colleagues for their willingness and support in allowing me to complete this work.

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Section 1: The Problem

Increased accountability has led to a focus on student achievement and data use (van Gasse et al., 2017). In 2015, the Every Student Succeeds Act became effective, mandating that instructional decisions be data driven (Mandinach & Gummer, 2016). This legislation dictated an increased emphasis in data collection beyond summative assessment and the use of these formative data to positively impact student proficiency (Mandinach & Gummer, 2016; Marsh & Farrell, 2015). While this has led to vast amounts of available data, many educators lack the capacity to effectively use data to make instructional changes (Little et al., 2019; Reeves & Chiang, 2018). Exploring how teachers used formative assessement data and specific instructional strategies based on these data could provide some insight into effective data use that increases student achievement. In this first section, I introduce the local problem, provide a rationale, define key terms, explain the significance of the study, and present the research questions (RQs) along with the review of the literature, conceptual framework, implications, and summary of this section.

The Local Problem

In a large high poverty district in the Southeastern United States, instructional leadership began requiring third grade reading teachers to administer district-created reading benchmark assessments in an effort to increase student proficiency. The problem is that teachers are not consistently using these formative data to improve student reading performance, creating a gap in practice. This gap in practice may be due to the teachers' lack of capacity to use the data to make changes to their instructional practices.

Researchers have indicated that there is a significant correlation between student achievement and teacher capacity to use data effectively (Ebbeler et al., 2016). Based on the 2019 State Report Card data, approximately 50% of third grade students in this district were not proficient readers. According to a content interventionist at the study site, district reading benchmark data also indicated that 57% of third graders did not meet state standard expectations for third grade proficiency. Based on the district's fall 2019 Reading Inventory data, 55% of third graders did not meet the beginning of third grade reading proficiency Lexile score. Currently, this southeastern state is in the bottom 25% in national literacy rankings. Based on national data, students in this state scored several points below the overall national average of 219 on the Reading portion of the National Assessment of Educational (*NAEP State Profiles*, 2019).

According to a content interventionist at the study site, in an effort to increase third grade student reading proficiency scores, the district's instructional support team created reading benchmark assessments to be administered at three intervals throughout the school year. The instructional support team at the study site shared that the goal of this formative data collection is to support teachers in communicating expectations for learning and lesson planning, assessing student learning, and predicting student future achievement. State report card data from 2016, 2017, 2018, and 2019 may have indicated inconistentent use of data to improve third grade students'reading performance with 59%, 57%, 57%, and 50% respectively being nonproficient. Prior to this study, there had been no investigation into third grade reading teachers' use of these formative data to improve student reading performance.

Rationale

Formative benchmark assessments are administered at intervals within a specific time period to assess student learning of content standards (Datnow & Hubbard, 2015b). Formative assessment data must be used effectively if these data are going to aid in increasing student proficiency. This district began implementing reading benchmark assessments 4 years ago to provide teachers with formative data to increase third grade student reading achievement. A content interventionist at the study site shared that this initiative took extensive commitment and resources. The results of the reading benchmark data have been inconsistent with a mean increase of 3.27% and a median increase of 3.29% on reading benchmark assessments from October 2018 to March 2019. The director of assessment at the study site stated that highest increase of third grade teachers reading benchmark data was 16.15% while the lowest increase was -17.62% on reading benchmark assessments from October 2018 to March 2019. The content interventionist at the study site claimed that while there have been large amounts of money and professional training invested in the development and utilization of these reading benchmark assessments over the last 3 years, there has been no investigation into teachers' specific data use of these assessments.

Consequently, the gap in practice that prompted this project study was the varying results in third grade reading benchmark data indicating an increase in student reading proficiency. Therefore, there was a need to investigate effective data use practices and instructional strategies implemented in response to those data. The purpose of this basic

qualitative study was to explore how third grade reading teachers are using data from reading benchmark assessments to effectively improve student reading performance.

Definition of Terms

The following definitions were used in this basic qualitative study:

Benchmark assessments: These assessments are given periodically and assess student learning and knowledge within a specific time period and can be collected across schools and classrooms (Datnow & Hubbard, 2015b).

Data: Information that is gathered and organized in a systematic fashion (Ebbeler et al., 2016).

Data driven decision making (DDDM): DDDM is Mandinach et al.'s (2006) theory that data become information that informs decision making. This information is evaluated, summarized, organized, and synthesized. DDDM allows for data to be personalized and instructional decisions to be made (Mandinach et al., 2006).

Data literacy: The knowledge and skill set needed to use data effectively (Ebbeler et al., 2016).

Every Student Succeeds Act of 2015: This legislation went into effect in 2015 requiring a more equitable education for all students with rigorous standards to promote college and career readiness through best practice interventions and accountability of schools to ensure continuous improvement (Every Student Succeeds Act, n.d.).

Formative assessment: A type of assessment given in intervals that informs learning and provides feedback to the teachers and students (Mandinach & Jackson, 2012).

Literacy: Literacy is the having the capacity to use written language to interact in the world and use written language to reach goals (National Center for Educational Statistics, n.d.).

Personalized learning: Learning needs, learning preferences, and learning interests are customized specifically for students (U.S. Department of Education, 2010).

Reading proficiency: Reading proficiency indicates that student learning meets grade level expectations in reading (Academic Performance and Outcomes for English Learners, n.d.).

Significance of the Study

Reading proficiency is important for student success. If students in third grade start behind, they will likely never be proficient readers (O'Conner, 2016). Students who are not reading on grade level by the end of third grade often encounter many obstacles in academic success and beyond (Reynolds, 2015). This project study may be important to the district superintendent, chief officer of instruction, school administrators, reading content interventionists, and teachers as it offers insight as to teachers' use of these formative data to improve students' reading performance. Specifically, these findings could provide valuable information that can aid teachers and administrators in using reading benchmark assessment data. Ultimately, the findings of this study could aid teachers in addressing students' specific deficits and help them meet grade level proficiencies.

Leadership in this district may use these findings to make decisions about the effectiveness of teachers' use of these benchmark assessments or the data gathered from

the assessments to impact student reading proficiencies. The findings of this study could positively affect social change in the area of third grade reading proficiency and teachers' ability to use the data to increase reading proficiency. This research may provide specific instructional strategies used through the DDDM process that increase student reading proficiency. The findings of this study could also yield results that have positive social change implications that reveal how teachers are using data and specific instructional strategies for DDDM. Moreover, this research may provide insight into effective instructional strategies as a result of the DDDM process that could be transferred to other grade levels and content areas.

Research Questions

There is a need for an increased shared understanding of how educators best use formative assessment data to improve teaching and learning (Immen, 2016). The purpose of this basic qualitative study was to explore how third grade reading teachers are using data from reading benchmark assessments to effectively improve student reading performance. The following RQs guided this basic qualitative study:

1. How are third grade teachers using formative reading assessment data to improve student reading performance?
2. What specific instructional strategies are third grade teachers using as a result of formative reading assessment data to improve student reading performance?

Review of the Literature

In order to collect and synthesize the literature for this project study, an extensive search of seminal works, current peer-reviewed articles, dissertations, and journals was

conducted. For the purpose of this basic qualitative study, the focus of these searches was on DDDM, formative assessment, data literacy, teacher beliefs about data use, teacher capacity, and benchmark assessments. Search terms such as *achievement, reading achievement, formative assessment, benchmark assessment, interim assessment, data culture, teacher capacity,* and *data literacy* were used to locate sources pertinent to this study. The following databases were used to locate the sources used in this review of the literature: ProQuest, Educational Resources Information Center (ERIC), Google Scholar, EBSCO Discovery Service, SAGE, and Science Direct. This literature review is organized into formative assessment, benchmark assessment, and factors that impede teachers' data use.

Conceptual Framework

Mandinach et al.'s (2006) theory of DDDM served as the conceptual framework that guided this study. The basis of the DDDM theory is that it allows for instructional goals to be made so teachers can personalize teaching and learning, which positively affects student reading performance (Mandinach et al., 2006). According to the DDDM theory, data become information that informs decision making. The information acquired from these data are then evaluated and summarized. This allows for the knowledge gained to be organized and synthesized. Then the data can be personalized, and informed modification to instruction can be made (Mandinach & Jackson, 2012). These data move continuously through this sequence in order for decisions to be made, implemented, and evaluated (Mandinach & Jackson, 2012; Marsh & Farrell, 2015). Because this theory

addresses the use of decision making through data analysis, it provided information that directed this study.

Many teachers in this district are not consistently using these formative data to improve student reading performance. These inconsistencies created a gap in practice. Using DDDM as the conceptual framework for this basic qualitative study, aided in providing an understanding of teachers' use of reading benchmark data to guide decision making to improve student reading performance. These RQs determined how teachers use these data to improve student reading performance and specific instructional strategies based on the data.

Review of the Broader Problem

The Every Student Succeeds Act of 2015 goes beyond legislation of compliance and dictates that decisions be evidenced based (Mandinach & Gummer, 2016). This necessitates the need for an increase in data collection beyond that of summative assessment and calls for a variety of formative assessment data (Mandinach & Gummer, 2016). Both federal and state policymakers have mandated that educational institutions be more data driven. While policies about data use may be relatively new, using formative data to improve teaching and learning is not. There is an abundance of significant research to support the use of formative assessment to increase student achievement (Reeves et al., 2016). Data use is considered to be the essential component for school improvement and is the driving force for continuous school improvement (Curry et al., 2015; Ebbeler et al., 2016). Using data to make instructional decisions is a global initiative (Datnow & Hubbard, 2015a). School leadership credits data use as the primary

method for meeting the strenous accountability demands (Curry et al., 2015). With increased accountability to be data driven, there is a focus on what it means to effectively use data to increase student achievement (Marsh & Farrell, 2015).

High stakes summative assessment has become the measuring stick for continuous school improvement (Curry et al., 2015). Effective data use is considered to be the key for improving achievement. High accountability systems and the potential to increase student achievement have led to an increased interest in teachers' use of data (Curry et al., 2015; van Gasse et al., 2017). Some educational institutions have started implementing benchmark assessments sometimes referred to as interim assessments. These benchmark assessments are given at interims throughout the year and yield data that may allow for decisions that inform instructional practices (Martone et al., 2018). This type of formative assessment can provide teachers with data to differentiate instruction and increase student proficiency (Konstantopoulos et al., 2019).

Many schools continue to struggle with ineffective data use due to a lack of vision and common language of what effective data use looks like in action (Mandinach & Gummer, 2016). Providing teachers with data does not mean that they will be able to evaluate and implement effective data practices or guarantee that they know how to use the data to modify their instructional practices (Reeves & Chiang, 2018). Many organizations are data rich, information poor (Obeidat et al., 2015). While most organizations have numerous resources for collecting and disaggregating data, they lack the capacity to use these data in a way that informs effective decision making. In order for data use to be effective, educators must be adept in analyzing and using data to

improve teaching and learning (Datnow & Hubbard, 2015a). Many teachers lack the capacity to turn the data into information that can inform decision making (Ebbeler et al., 2016; van Geel et al., 2017).

Formative Assessment

Since the implementation of No Child Left Behind (2001) and Every Student Succeeds Act (2015), there has been an increased focus on data use practices beyond the use of summative assessments at the conclusion of the school year. Summative assessments are designed to be evaluative and occur after teaching and learning have taken place (Dixson & Worrell, 2016; Li, 2016). These assessments provide information on students' proficiency in a specific content area and have a lesser impact on teaching and learning than formative assessment (Mandinach & Jackson, 2012). Summative assessments do not provide data that are used for teachers to modify instruction to meet the needs of current students. Consequently, many educational organizations have begun to use more formative assessment (Garner et al., 2017).

The use of formative assessment is considered to a be an effective strategy for improving student learning and school improvement. Formative assessment is defined as the activities that provide insight into student learning during learning that allow for instructional changes to be made to meet the learners' needs (Li, 2016). The purpose of formative assessment is to fill gaps between learned skills and outcomes (Dixson & Worrell, 2016; Sadler, 1989). The main goal of formative assessment is not just to determine student learning but also to improve it. Formative assessment is forward thinking and allows for the bridging of learned content and content yet to be mastered

(Black & William, 1998; Gustafson et al., 2019). Formative assessment provides information that can improve both teaching and learning (Li, 2016). The pupose of formative assessment is to improve teaching and learning. Formative assessment is considered the foundation for successful instuction (Reeves et al., 2016).

Formative assessment is based on two foundational understandings (Anderson & Palm, 2017). The first is teaching and learning and includes three processes: (a) where the learner is going, (b) where the learner is right now, and (c) how the learner will get there (Anderson & Palm, 2017). The second understanding is that the teacher, the learner, and peers all attribute to the three processes. Student learning is interpreted by teachers, learners, and peers, and decisions are made about next steps of instruction based on these interpretations. Formative assessment allows for process and the diagnosis of student needs (Anderson & Palm, 2017).

Formative assessment creates the opportunity for assessment of learning during learning and is often referred to as assessment for learning (Hopfenbeck, 2018). These assessments should take place often, be interactive, and serve as a means to modify instruction to meet the needs of the students. Formative assessment not only provides data for student learning but creates an opportunity for teachers to be reflective of their instructional practices and modify as needed (Ahmed et al., 2019; William, 2011). This formative data collection for learning provides information about both the learning and the teaching. Formative assessment allows for a pulse check on the actual learning taking place, what still needs to be learned, and the plan to bridge the gap (William, 2011). Formative assessment allows for modifications to be made based on student needs during

the learning (Li, 2016). Formative assessment is an essential characteristic of learning (Darling-Hammond et al., 2015). The information gained from these assessments allows teachers to provide timely feedback to students. This in turn allows students to modify their own understandings (Darling-Hammond et al., 2015)

Formative assessment can provide data that are specific to each student and allow teachers to provide targeted instruction based on those specific needs (Staman et al., 2017). These assessments diagnose student difficulties, are ongoing, improve teaching and learning, and are low stakes (Dixson & Worrell, 2016; Mandinach & Jackson, 2012). Formative assessment provides instructional feedback that is time sensitive and allows for immediate adaptations to instruction to be made in order to meet the needs of the learner. This type of assessment gives teachers insight into students' strengths and weaknesses (Li, 2016). Formative assessments are both formal and informal. This process allows for the gathering of evidence of student learning (Kleij, 2019). These assessments are given in intervals that inform learning and provide feedback to teachers and students (Mandinach & Jackson, 2012). Types of formative assessments include planned and impromptu (Dixson & Worrell, 2016). Planned formative assessments are intentionally administered to students to measure learning. Conversely, spontaneous formative assessment can occur naturally through student body language and inquiries (Dixson & Worrell, 2016). Some examples of formative data collection include observations, anecdotal notes, work samples, questioning, and end of unit assessments. These formative data drive instructional changes that influence teaching and learning (Little et al., 2019).

An essential component of formative assessment is providing feedback to learners. This feedback should be given in a timely manner (Pinger et al., 2016). Students should be given the opportunity to become active learners. They need to know what they have mastered, what they need to work on, and how they can achieve their goals (Martone et al., 2018; Pinger et al., 2016). Students need to take part in the goal setting process and take ownership in their learning. As part of this process, students need opportunities to monitor their learning and reflect on their learning (Pinger et al., 2016). Formative assessment provides teachers with information that they can share with students that encourages learners to take responsibility for what they have learned and what they still need to master. Furthermore, this formative assessment process aides in creating a classroom culture of collaboration and trust between the student and the teacher (Li, 2016). Researchers have indicated that this type of interaction helps to foster a relationship and a sense of security for students. Ultimately, the formative assessment process aids in students' academic performance (Li, 2016).

According to Tomlinson (2016), there are ten key principles of formative assessment. The first principle is that students need to understand the purpose of formative assessment is to help them learn. If students do not understand the purpose of formative assessment, they may be more focused on the grade than their actual learning (Tomlinson, 2016). In order for formative assessment to improve both teaching and learning, teachers must focus on what students should know, understand, and be able to do (Bambrick-Santoyo, 2010). Another important principle of formative assessment is that teachers allow for flexibility. For example, students with limited English skills may

demonstrate their learning with some modifications in their formative assessment (Tomlinson, 2016). Students also need to be given feedback. While formative assessment is not always graded, students need feedback that allows them to know what they have successfully learned and how they can improve their learning (Pinger et al., 2016; Tomlinson, 2016). Additionally, teachers should formatively assess consistently within each lesson. Students should be engaged in this assessment process. For example, students can engage through grading their own work by using a rubric specific to the content they have been learning or through comparing their work to exemplars (Tomlinson, 2016). Formative assessment should be used to find patterns in student learning that the teacher can use when planning instruction. Formative assessment provides the teacher with information to differentiate instruction based on student needs (Marsh & Farrell, 2015; Tomlinson, 2016). The last principle is that this formative assessment be ongoing. This is a continuous process that informs the next steps for teaching and learning (Marsh & Farrell, 2015; Tomlinson, 2016).

Research indicates that formative assessment has a positive effect on student proficiency (Ebbeler et al., 2016; Immen, 2016; Li, 2016). Data based instructional practices are the foundation for increasing student achievement (Curry et al., 2015). Klute et al., (2017) conducted a comprehensive review of 19 studies of elementary schools and their students based on the formative assessment framework of Black and William. The findings indicated that students who participated in formative assessment performed better on measures of academic achievement (Klute et al., 2017). Li's (2016) nationwide study included data from over 5,000 students and noted a positive relationship between

formative assessment and student reading achievement. This research indicated that formative assessment had an effect on students' reading achievement both directly and indirectly. Through the use of classroom formative assessment, Van Den Berg et al., (2017) found a positive effect on student achievement. Investigating how teachers are effectively utilizing these benchmark formative data and modifying instruction based on these data, could aid in addressing this gap in practice at the local level.

Benchmark Assessments

Increased accountability and school improvement goals have led to systematic assessment systems in education (Immekus & Atitya, 2016). This focus on data due to high accountability systems and student achievement within recent years has led to widespread implementation of benchmark assessments (Immekus & Atitya, 2016; Martone et al., 2018). These assessments are sometimes referred to as interim assessments and provide formative data (Herman, 2017). These assessments are given in intervals and often offer data that can be used to aid teachers in preparing students for summative assessments (Dixson & Worrell, 2016). Currently, much emphasis is placed on benchmark assessments and these formative data have become the focus of data use for many teachers and school districts (Datnow & Hubbard, 2015a).

The overall goal of benchmark assessments is to yield data that is used to make instructional decisions that promote student achievement (Immekus & Atitya, 2016). This is true at classroom, school, and district levels. At the classroom level, these data are used to assess teaching and learning so that instruction can be modified to meet the needs of the learners (Immekus & Atitya, 2016). These assessments may expose patterns that lead

to changes in the classroom, schools, and district (Martone et al., 2018). While there is much focus on the use of benchmark data to inform teachers' instructional practices, benchmark data are often used by school and district leaders for other reasons. These data are commonly used as a predictive tool of performance on year end summative assessments and for evaluation (Immekus & Atitya, 2016; Martone et al., 2018). These data are often used to assist in identifying students who are close to mastery of standards to be assessed on the standardized summative assessment. Once these "bubble" students are identified, these students often receive targeted instruction to help increase the likelihood that they will achieve mastery on the summative assessment (Immekus & Atitya, 2016). Interim assessments are also often used as an evaluative tool of current curriculum and instruction (Martone et al., 2018).

Formative assessments are conducted frequently by the teacher during teaching and are informal (Herman, 2017). Benchmark assessments are typically administered within a specific time period with specific learning objectives and produce formative data. These interim assessments tend to be more systematic and data collection is not only for teacher use but for school and district purposes (Herman, 2017). Benchmark assessments are often administered on a district timeline and include all the classrooms in a specific grade or grades within a district or content area. Benchmark assessments are regularly used by districts as a predictor of student proficiency on year end summative assessments (Herman, 2017). While there are some differences in benchmark assessments and traditional formative assessment, benchmark assessments are a type of formative

assessment that provide teachers with data that can be used to make modifications to teaching and learning (Datnow & Hubbard, 2015b).

Benchmark assessments are given three times a year, are not high stakes, and provide baseline, midyear, and year end data points (Koon & Petscher, 2016). These interval assessments audit student learning and serve as checkpoints toward mastery of year end objectives and are aligned to summative assessments (Garner et al., 2017). This type of systematic formative assessment allows for maximized learning through targeted instruction (Staman et al., 2017). Interim assessments can provide wide-scale data that indicate trends and inform instructional practices (Martone et al., 2018). These assessments give teachers the tools that they need to tailor learning and increase student achievement (Konstantopoulos et al., 2019).

One key characteristic of interim assessments is that data can be systematically disaggregated for analysis based on specfic data needs (Koon & Petscher, 2016). The purpose of these diagnostic assessments is to evaluate skills or standards within a specific period of time (Datnow & Hubbard, 2015b; Konstantopoulos et al., 2019). These formative assessments can also provide educators timely insight into students' learning and give teachers needed information to differentiate instruction based on student needs (Bambrick-Santoyo, 2010). For these assessments to yield meaningful data for deep analysis, there must be enough information from the data on which to base instructional decisions. Many assessment items are mutiple choice and provide immediate data. However, open response questions may allow for richer examination of data (Martone et al., 2018). The goal of this type of assessment is to provide the teacher with enough

information to tailor instruction to target students' specific deficits and increase student achievement. (Bambrick-Santoyo, 2010; Konstantopoulos et al., 2019; Koon & Petscher, 2016). Through this series of assessments, teachers gain information about student strengths and weakness. These data enable the teacher to make changes in instruction as needed for student success (Konstantopoulos et al., 2019).

In order for benchmark assessments to provide teachers with meaningful data, these assessments must be well-designed and purposeful (Martone et al., 2018). While some commercial benchmark assessments are available, creating common benchmark assessments within a district does have some advantages. There are merits to both (Garner et al., 2017). Commercial assessments often do not match specific state standards while locally created assessments are often designed with alignment to specific state standards. Conversely, commercially created benchmark assessments have typically undergone extensive validity tests that locally designed assessments often have not (Garner et al., 2017). Interim assessments created within a district by administrators and teachers allow for considerations to be made based on pacing of specific standards and skills (Martone et al., 2018). Additionally, including teachers in the creation of formative assessments may increase teacher buy in (Furtak et al., 2017)

This collaboration creates a common language and an improved understanding between the content and assessment (Martone et al., 2018). Using benchmark assessments allows the teacher to see the content through a different lens and serves as a monitor of student growth throughout the year (Martone et al., 2018). These assessments are designed to assess specific learning objectives and provide information for not only

teachers and students but decision makers (Koon & Petscher, 2016). However, providing teachers with data does not within itself ensure that teachers will know how to effectively use the data to increase student achievement (Ebbeler et al., 2016; Farrell & Marsh, 2016; Mandinach & Gummer, 2016).

For effective data use of benchmark assesments it may be necessary that considerations beyond a well-designed assessment be in place. Teachers need assistance with analysis of these data and supports that aid teachers in implementing instructional changes (Martone et al., 2018). There should be a culture of data use with a common language and a structure that is focused on using data to impact teaching and learning. Specifically, implementing a specific framework for evaluation and reflection may be effective in the process of turning data into information that guides instructional decisions (Martone et al., 2018). The amount of impact depends on the teacher's ability to use the data effectively (Immen, 2016). Improved student achievement can only be expected when it is preceded by changes in teachers' behavior within the classroom (Desimone & Pak, 2017). Utilizing benchmark assessments and these data successfully, is a multifaceted practice that requires supports to increase the quality of teaching and learning (Martone et al., 2018).

Factors That Impede Teachers' Data Use

When data is used in a systematic way, it can increase student achievement and promote continuous school improvement (Datnow & Hubbard, 2015a; DuFour & Eaker, 2009; Senge, 1990). However, when data use is unstructured, it may not be an effective strategy for student and school improvement (Datnow & Hubbard, 2015a). Some factors

that impede teacher data use include: (a) data culture, (b) data literacy, and (c) teacher capacity and teacher beliefs.

Data Culture

Leaders often assume that educators know how to interpret data and make instructional changes accordingly while in fact many educators do not have the capacity to use these data to make instructional changes (Farrell & Marsh, 2016). Using data effectively can be complex as there are a wide range of instructional responses that can be used when implementing data-based decisions. A lack of understanding as to how to modify instruction in a concise and systematic manner based on data can lead to ineffective data use (Farrell & Marsh, 2016). Educators are expected to use data effectively, but often lack an understanding and the training needed for DDDM (Datnow & Hubbard, 2015a.). Using data in a way that leads to meaningful changes in teaching and learning, requires a deep understanding of standards, skills, and learning outcomes (Marsh & Farrell, 2015).

Leadership effects the culture of data use in a school (Datnow & Hubbard, 2015a; Farley-Ripple & Buttram, 2015; Keuning et al., 2017). Principal attitudes toward data use impacts data culture as they are often the ones with the power to allocate monetary resources, training, and time. The value that teachers place on data use is influenced by their principals' data use beliefs (Datnow & Hubbard, 2015a). District leadership also shapes data culture as the goals for data use are often set for specific purposes for school improvement (Datnow & Hubbard, 2015a). One key component of an effective data culture is trust (Farley-Ripple & Buttram, 2015). This is important as it allows for data to

be seen as a means to improve instruction and not as judgment (Datnow & Hubbard, 2015a; Keuning et al., 2017). Schildkamp and Poortman (2015) found that data use is negatively impacted when there is a culture of "shame and blame". Data culture is impacted by the norms and procedures in place for the collaborative inquiry process (Farley-Ripple & Buttram, 2015). Teachers need to feel that there is a culture that encourages collaborative inquiry as an empowerment tool for improving performance (Datnow & Hubbard, 2015a; Schildkamp & Poortman, 2015). Professional learning communities (PLCs) promote collaborative inquiry (DuFour & Fullan, 2013). Effective PLCs have a shared purpose, focus on student learning, a shared inquiry of best practice and present reality, learning by doing, dedication to continuous improvement, and a focus on results (DuFour & Fullan, 2013). High performing PLCs work together in collaborative teams that take shared responsibility for student learning, establish a guaranteed and viable curriculum, use common formative assessments based on the guaranteed and viable curriculum, use data from these assessments to identify student's needs, and create a system of interventions to support students with new direct instruction (DuFour & Reeves, 2016).

For positive data cultures, leadership must communicate the vision of data use and an understanding of the significance of data to improve schools (Keuning et al., 2017). Lack of support in the data use process has a negative impact on data culture (Martone et al., 2018). Much research suggests that effective data use is a collaborative endeavor. This collective process encourages shared ideas within a social context (Farley-Ripple & Buttram, 2015). Collaboration allows for educators to discuss effective

strategies and to participate as a team in creating a plan for attaining goals (Keuning et al., 2017). Teachers need data supports such as data coaches, data teams, and training (Mandinach & Gummer, 2016). Within this support system there is a need for shared norms and expectations for data use (Martone et al., 2018). While data culture does have an impact on data use, lack of teacher training in using DDDM impacts effectiveness.

Data Literacy

In order to build effectiveness of data use practices, teachers need to be data literate. Data literacy includes not only being competent in data use but in instruction (Farley-Ripple & Buttram, 2015). Gummer and Mandinach (2015) defined data literacy for teaching:

> Data literacy for teaching is the ability to transform information into actionable instructional knowledge and practices by collecting, analyzing, and interpreting all types of data (assessment, school climate, behavioral, snapshot, longitudinal, moment-to-moment, and so on) to help to determine instructional steps. It combines an understanding of data with standards disciplinary knowledge and practices, curricular knowledge, pedagogical content knowledge, and an understanding of how children learn. (p. 2)

Teachers' data literacy impacts their abilty to use data appropriately. Being data literate is imperative if schools are to effectively use data (Ebbeler et al., 2016). Data literacy refers to the ability to be able to systematically analyze and interpret data to make decisions that influence instructional practices and student learning. Data literacy is necessary for continuous inquiry (Ebbeler et al., 2016). Data literacy for teaching is also

referred to as instructional decision-making and pedagogical data literacy (Farley-Ripple & Buttram, 2015). Lack of teacher confidence in their own ability to use data effectively often leads to data left unexamined (van Gasse et al., 2017). Ongoing professional training is needed to support effective data use practices (Mandinach & Gummer, 2016)

Teacher Capacity and Teacher Beliefs

Teacher capacity to use data correctly impacts effective data use (Datnow & Hubbard, 2015a; Farley-Ripple & Buttram, 2015). Research suggests that teacher's beliefs about data use are directly linked to teacher's capacity to use data (Farley-Ripple & Buttram, 2015). Teachers need the opportunity to acquire skills that go beyond accessing data in order for them to effectively analyze and use data to modify their instructional practices (Datnow & Hubbard, 2015a; Ebbeler et al., 2016). Specifically, research indicates that the biggest struggle for teachers in the DDDM process is in understanding the data and modifying their instruction accordingly (Reeves & Chiang, 2018). Not being adept in interpreting these data or in utilzing the information gained from these data to make instructional changes, impedes the success of the DDDM process (Reeves & Chiang, 2018). Significant evidence suggests that teachers often make tenuous data based changes such as grouping or differentiating instruction but fail to make substantial changes in instruction based on data (Reeves & Chiang, 2018). Teachers need training to become proficient in the DDDM process to effectively analyze and interprete data (Farley-Ripple & Buttram, 2015; Reeves et al., 2016).

Along with analysis and interpretation, teacher capacity includes the ability to use data to make instructional decisions (Farley-Ripple & Buttram, 2015). Building capacity

for effective data use is both a collaborative and lone process (Datnow & Hubbard, 2015a; DuFour & Eaker, 2009; Gummer & Mandinach, 2015). This collaborative process allows for richer interpretations and collaborative inquiry of data analysis and use (Farley-Ripple & Buttram, 2015). Effective data use is a collaborative process where educators build data use capacity by learning from each other (Farley-Ripple & Buttram, 2015). For collaborative inquiry to be effective, it is essential that time be allocated for collaboration of data analysis and next steps (Farley-Ripple & Buttram, 2015).

Teachers need practice and training to grow their data use skills (Datnow & Hubbard, 2015a). For teachers to effectively implement DDDM, they need the skill set to understand the data. They need to understand what the assessment is measuring (Datnow & Hubbard, 2015a). Teachers need the ability to analyze the assessment questions in order to recognize the skills and thinking needed for students to participate in the assessment (Datnow & Hubbard, 2015a). Often educators look at the basics of the data such as the mean or mode and fail to or lack the ability to meaningfully analyze the data for patterns. This can lead to insufficient analysis (Reeves & Chiang, 2018).

Data use in schools is often a social process (Farley-Ripple & Buttram, 2015). Therefore, the quality of the data use is affected by the capacity of the people involved in the data conversations. The analysis of the data and the next steps based on the data are determined by the dialogue of those involved in the process (Farley-Ripple & Buttram, 2015). Often these data conversations include groups of educators (Farley-Ripple & Buttram, 2015). Becoming proficient in data use does not happen in isolation (Mandinach & Gummer, 2016).

Teachers' beliefs about the use of formative data to increase student achievement and the extent in which they use the data influence the effectiveness of formative assessment on achievement (Martone et al., 2018; van Geel et al., 2017). Immen (2016) found a significant relationship between teachers' belief that using student data is effective and the extent and the confidence in which they used data. Many teachers are insecure in their ability to use data in a way that will improve student learning. Some studies have found that lack of teacher "buy in" influences data use beliefs (Datnow & Hubbard, 2015a). Trust is a key component in teacher beliefs. When teachers feel that data is being used for evaluative purposes or that they are being exposed, they are less likely to engage in data debriefings (Datnow & Hubbard, 2015a). However, utilizing data teams has shown to a have a positive effect on teachers' beliefs about data use and the collaborative process. These teams often consist of teachers, a content specialist, and school administration (Reeves et al., 2016). Growing trust within an organization for effective data use can take extensive time (Datnow & Hubbard, 2015a). Along with teacher beliefs, anxiety contributes to the efficacy of teachers' data use. Reeves and Chiang (2018) defined DDDM self-efficacy as follows:

> DDDM self-efficacy has been defined as teachers' beliefs in their abilities to organize and execute the necessary courses of action to successfully engage in classroom level DDDM to enhance student performance. DDDM anxiety has been defined as the trepidation, tension, and apprehension teachers feel related to their ability to successfully engage in DDDM. (p. 2)

These psychological characteristics can undermine the effectiveness of DDDM process (Reeves & Chiang, 2018).

There are many factors that interfere with the effective use of data to make sound instructional decisions (Ebbeler et al., 2016; van Geel et al., 2017). Data culture, data literacy, and teacher beliefs and capacity are some of the overarching factors that can impede the data use process. An understanding of how teachers use data to make instructional decisions may address the gap in practice at the local setting.

Implications

Further research was needed to better understand how teachers at the local setting are effectively using third graders' benchmark assessment data to make instructional changes and increase student reading proficiency. This research investigated the use of these formative assessment data and what specific instructional responses as a result of these data have led to increases in student achievement. While data use to inform practice is complex, there is belief that it is a simple progression. Merely providing teachers with data will not change instruction (Farrell & Marsh, 2016). A qualitative project study that explores teachers' use of reading benchmark data and their specific instructional changes based on these data could add to the literature and address the gap in practice in a large school district in the Southeastern United States. I anticipate that this project study may yield results worth sharing for professional development (PD) within this district. Findings from this study, may provide effective data use practices based on third grade reading benchmark assessments and specific instructional strategies that aid in increasing student reading proficiency.

Summary

The local problem is that teachers are not consistently using formative benchmark data to improve student reading performance, creating a gap in practice. Upon further research I found that there is much research on the use of formative assessment data to effect student learning outcomes; however, there is little research on specific instructional strategies implemented by teachers to modify instructional practices based on these data. The purpose of this basic qualitative study was to explore how third grade reading teachers are using data from reading benchmark assessments to effectively improve student reading performance. In the next section, I will discuss the qualitative methodology that was used to examine teacher's data use of reading benchmark assessment data and specific instructional responses based on these data.

Section 2: The Methodology

The purpose of this basic qualitative study was to explore how third grade reading teachers are using data from district reading benchmark assessments to effectively improve student reading performance. Open-ended semistructured interviews were used as the data collection method for this study. Qualitative data were used to explore how third grade teachers are using reading benchmark assessment data and specific strategies based on these data for increasing third grade students' reading proficiency. The study site for this research was a large school district in the Southeastern United States. In this section, I will focus on the research design, participants, data collection, and data analysis.

Research Design and Approach

A basic qualitative design was used to explore third grade teachers' use of reading benchmark data and specific strategies used as a result of these data to increase student performance. Qualitative research allows for meaning to be constructed out of social experiences and provides insight through personal experience of the phenomenon being studied (Burkholder et al., 2016; Ravitch & Carl, 2016). A basic qualitative design allows the researcher to interpret human experiences and to gain an understanding of those experiences. The difference between a basic qualitative design and other qualitative designs is that the other designs include an added component such as multiple data sources, becoming a participant in the research, or sensitive research topics (Merriam & Tisdell, 2015).

When designing this project study, I considered other qualitative designs. A case study design was considered for this project. Both case study and basic qualitative designs seek to understand lived experience, and both designs use the researcher as the main instrument for gathering and analyzing data (Merriam & Tisdell, 2015). Both designs study phenomenon within a bounded system. While a case study has many similar attributes, it includes a variety of data sources (Merriam & Tisdell, 2015). To meet the purpose of this basic qualitative study, one data collection method was used.

Ethnography was also considered for the design of this project study. However, upon further study, I discovered that this would not be an appropriate design. The purpose of ethnography is to understand the interaction of others within their culture and their interactions within a society (Merriam & Tisdell, 2015). Ethnography allows the researcher to become a participant and includes field notes and observation (Ravitch & Carl, 2016; Yin, 2016). This was not an appropriate design as the purpose of this basic qualitative study was not to better understand a culture or the interaction between the members of a culture but to explore a specific phenomenon.

Another design that I considered was the phenomenological design. Phenomenology is based on lived experiences and social interactions (Merriam & Tisdell, 2015). This design is especially appropriate when studying sensitive topics such as love and disloyalty. While the purpose of this basic qualitative study was to focus on lived experiences, this is not a sensitive subject related to emotion and may not have been the best design for this project. After consideration of various designs, a basic qualitative design was selected. A basic qualitative design allowed for the exploration of third grade

teachers' use of reading benchmark data and specific strategies used as a result of these data to increase student performance.

Quantitative research would not have been an appropriate design for this research project. The purpose of quantitative research is to quantify variables in order to answer the RQs and to test a hypothesis (Creswell & Creswell, 2018). In this study, teachers shared their experiences. Therefore, there was no need for quantification in this study. In order to answer the RQs of this study, a qualitative design was needed.

Participants

Purposeful sampling was used for this study. Purposeful sampling is a very common practice for qualitative researchers (Merriam & Tisdell, 2015). Purposeful sampling allows the researcher to select participants who are connected to the phenomenon being studied (Creswell & Creswell, 2018). This was an appropriate strategy for this study as the participants had extensive knowledge of the district reading benchmark assessments, their data use, and instructional strategies used in response to these data. Purposeful sampling allowed me to conduct open-ended semistructured interviews. There were approximately 80 third grade reading teachers in this district during the 2018-2019 school year. Of these approximate 80 teachers, 20 of these teachers who met the specific criteria were asked to participate in this study.

The 20 teachers whose class average increased the most on the benchmark assessments from the October 2018 to March 2019 were invited to participate in this study. Of the 20 teachers invited to participate in this study, 13 agreed to take part in this research project. These participants were able to offer some insight into effective

benchmark data use as their class averages showed significant increases. The average reading benchmark score of each third grade teacher's class from October of 2018 and March of 2019 was collected. This provided me with data from approximately the top 25% of teachers whose class averages increased the most from the fall of 2018 to the spring of 2019 on the reading benchmark assessment. These teachers participated in both the open-ended semistructured interviews and submission of their three data reflection tools that noted student's weaknesses, strengths, and teacher's next steps for the 2018-2019 school year. This was a sufficient number of participants for this type of research study. According to Creswell and Creswell (2018), having fewer participants in qualitative research can promote more in-depth data. Interviewing this small sampling allowed me to conduct extensive open-ended semistructured interviews of the teachers whose students had the most growth on the benchmark assessments. Interviewing more than these 20 teachers may not have led to the collection of quality information. Interviewing more than 20 teachers may not have granted me access to teachers who effectively used these data to make instructional changes that positively impacted student reading performance. By using purposeful sampling, a small number of participants, and these specific criteria, I gained access to the teachers whose third grade class averages were in the top 25% for growth in student reading achievement based on these benchmark assessments.

Of these 13 participants, nine of them had a Master of Education degree and four of them had a Bachelor of Education degree. Seven of the participants had 10 or more years teaching experience, four of the participants had between 5 and 10 years of

teaching experience, and two of the participants had less than 5 years teaching experience (see Table 1).

Table 1

Participant Demographics

Teacher interviewee	Degree: Bachelor of Education	Degree: Master of Education	Less than 5 years teaching experience	Between 5-10 tears teaching experience	10 or more years teaching experience
Teacher 1	X	X			X
Teacher 2	X	X		X	
Teacher 3	X			X	
Teacher 4	X				X
Teacher 5	X	X			X
Teacher 6	X	X		X	
Teacher 7	X	X			X
Teacher 8	X	X			X
Teacher 9	X		X		
Teacher 10	X	X		X	
Teacher 11	X		X		
Teacher 12	X	X			X
Teacher 13	X	X			X

Access to Participants

Once my plans for my study were solidified, I submitted an official application and received written approval from the district Office of Accountability (see Appendix B). I also obtained written permission from my direct supervisor to conduct my research. Once I received institutional review board (IRB) approval, I was in communication with the district director of accountability and received the names of the participants who met the criteria for this study.

Once I received IRB approval, I reached out to the purposefully selected participants with a letter describing the project study. I assured the participants of their rights and privacy should they choose to participate. According to Creswell and Creswell (2018), it is imperative that the rights of participants are protected and that a trusting participant and researcher relationship be intact. The consent form explained that any identifying names or characteristics would not be included in any of the data collected. The consent form also explained that instead of names participants would be represented as T1 for Teacher 1 and T2 for Teacher 2 through the number of participants.

This study was conducted in the district where I have taught for the last 15 years, so creating a researcher-participant relationship was easily accomplished. However, this relationship could have possibly created the potential for researcher bias. It is imperative that bias be eliminated so that the research can be accurate as the quality of research depends on the quality of ethics applied to the study (Bryan & Burstow, 2017).

Data Collection

Qualitative research allows for the investigation of a problem through data collection that is typically gathered in the participants' setting and leads to inferencing for meaning (Creswell & Creswell, 2018). Using a basic qualitative project study design allowed for the investigation of third grade teachers' use of reading benchmark data and specific strategies used as a result of these data to increase student reading proficiency. Qualitative data best answered the RQs of this study.

Teacher Interviews

These data were collected through open-ended semistructured interviews. Teachers' data reflection tools were also available as these completed reflection documents were used by interviewees as part of the interview process. These data reflection tools noted student's weaknesses, strengths, and teacher's next steps for the 2018- 2019 school year. Open-ended semistructured interviews were conducted of the top 25% of third grade reading teachers' whose student classroom averages increased the most for the 2018-2019 school year on the district reading benchmark assessments. These interview questions were developed by me (see Appendix D).

Additionally, each of the participants whose students made the most gains from October 2018 to March 2019 on the district reading benchmark assessments used their data reflection tools from October, January, and March of the 2018-2019 school year. Interview data were collected through interview protocol and audio recordings. Interviews are often used in qualitative research as asking good questions can lead to thorough responses (Merriam & Tisdell, 2015). Interviewing allows the researcher to

explore others' perspectives, experiences, and opinions (Rubin & Rubin, 2012). According to Ravitch and Carl (2016), one-on-one interviews facilitate rich dialogue about experiences and thoughts and allow for naturalistic research. Collecting qualitative data in individual research interviews includes asking questions, prompting, and procedures that guide the process (Ravitch & Carl, 2016). Interviewing allows for specific data to be gained in an organized method, which can lead to a collection of narratives (Butin, 2010). I developed the interview protocol (see Appendix D), which came largely from the district standardized data reflection tool template (see Appendix E). These were used during the interview by both me and the participant and in some cases served as a catalyst for follow up questions.

Open-ended semistructured interviews were used instead of structured interviews. Structured interviews include fixed questions that yield limited responses as they are essentially an oral survey (Merriam & Tisdell, 2015). Open-ended semistructured interviews allow for more thoughtful replies that yield richer data for examination as opposed to surface responses (Butin, 2010). Conversely, unstructured interviews would not have been an appropriate data collection tool as some specific data were needed to answer the RQs of this study. Open-ended interviews also referred to as unstructured interviews, do not follow a specific interview protocol and typically questions are personalized for interviewees (Ravitch & Carl, 2016). Open-ended semistructured interviews include an interview protocol ranging in structure (Merriam & Tisdell, 2015). While some specific demographic data were needed for this study, the largest part of the interview was guided by issues that were explored in order to answer the RQs. Though

there are purposeful criteria for an open-ended semistructured interview, there is also the flexibility for the researcher to ask follow up questions based on the participants' responses (Merriam & Tisdell, 2015).

Once I received written IRB approval, I contacted the 20 teachers who met the criteria for this purposeful selection of participants. Through this initial email (see Appendix C), I introduced myself, shared the purpose of my research, explained their role should they choose to participate, and included my consent form which included their rights and safeguards. Once I received their signed consent forms, I contacted each participant to set up individual interviews. Due to the pandemic, interviews were conducted via Zoom.

I have been an educator in this district for 15 years. Many of the participants are educators that I have known professionally which I believe aided in creating a positive researcher-participant relationship. My role in this study was as a data collector, data analysist, and reporter. As the interviewer, I actively listened to responses and coded those responses objectively. I avoided asking leading questions. The interview questions were purposely designed to eliminate the potential for researcher bias. The interviews were recorded, transcribed, coded, and themes identified. These recordings were transcribed utilizing Temi an audio to text software and downloaded into a Word document. These transcriptions were then copied and pasted into an Excel document. Once these data were collected, transcribed, and logged in an Excel document the data analysis process began.

Data Analysis

A qualitative analysis of open-ended semistructured teacher interviews was conducted. According to Burkholder et al., (2016), data gained through qualitative research allows for meaning to be constructed out of social experiences.

This qualitative analysis was conducted through open-coding and thematic analysis. At the conclusion of each interview, data were organized within an Excel document. Once these data had been transcribed, I ensured accuracy and credibility by member checking. Member checks aid in fostering valid and reliable results and in addressing discrepant cases in the data analysis process (Creswell & Creswell, 2018). I had each respondent examine my transcription of their interview to confirm that they were accurate. Additionally, I was committed to making sure that I devoted adequate time to each interview transcription. Within this Excel document, there were tabs across the bottom that indicated the RQ asked of the participants. Each row on each tab was labeled as Teacher 1, Teacher 2, through the 13 participants. Therefore, the Excel document included five tabs and 13 rows indicating the specific teacher code. Additionally, along the top of each sheet there are five columns labeled as follows: RQ, Transcription, 1st Cycle Descriptive, 1st Cycle Concept, and 2nd Cycle Patterns and Themes. Consequently, each sheet had five total columns and 14 total rows. An additional tab was added to include demographic information that included the number of years the teacher has taught and their highest degree. The transcription for each question was copied in the corresponding box.

I was committed to making sure that I devoted adequate time to each interview transcription and coding to make sure that data saturation took place. According to Merriam and Tisdell (2015), saturation takes place when data produce no new information relevant to the research. Saturation yields data that are credible (Merriam & Tisdell, 2015). I was also cautious of my position and relationship when analyzing these data in order to eliminate any researcher biases. Positionality refers to the relationship of the researcher to the study, the setting, and the objectives of the study (Ravitch & Carl, 2016). Audio recording interviews, member checking, and staying focused on the objectives of the study aided in eliminating researcher bias.

Once each interview had been transcribed, member checked, and copied into the Excel document, the coding process began. These data went through three cycles during analysis. This analysis included descriptive, concept, and pattern and theme coding. Coding in research is a short summative term that allows for easy identification of a piece of data that may aid in answering a RQ (Merriam & Tisdell, 2015). Open coding aids in identifying possible data early in the data analysis process (Merriam & Tisdell, 2015).

First, I completed a descriptive coding cycle. During this cycle, I described what I gained from the text. Descriptive codes represent the researcher's understandings (Ravitch & Carl, 2016). First cycle coding for description is used to summarize the data into short words or phrases (Saldana, 2016). Then I conducted a concept cycle of coding. Concept coding allows for interpretations to be made by the researcher (Saldana, 2016). During the third cycle, I coded for patterns and themes. I used this coding process for each RQ and for each participant. I used a color-coding system within the Excel

document to help organize patterns and recognize themes for interpretation. A theme is a statement that summarizes the findings of the coding and categorization. (Rubin & Rubin, 2012).

I then engaged in analytical coding. This grouping of open coding allows for categorization and interpretations of data as themes begin to emerge. According to Merriam and Tisdell (2015), this is an inductive process. These categories should be the answers to the RQs, be exhaustive, fit into one category, sensitizing, and conceptually congruent. This process of coding and categorization provided answers to the two RQs of this study. Interview questions one, two, and three provided data that informed RQ 1 and interview questions four and five provided data that informed RQ 2. This design, descriptive coding, concept coding, pattern coding, and analysis allowed for exploration of third grade reading teachers' data use of these formative assessments and specific instructional strategies implemented as a result of these data to improve student reading performance.

Limitations

This research may have been limited as this study was only conducted of 3rd grade reading teachers. Therefore, the findings may not be generalizable to other grade levels. Another limitation of this study was that these data are only representative of one year and includes only one form of data collection. This limited data collection did not allow for the triangulation of data. Additionally, another possible limitation of this study was researcher bias. As a previous third grade teacher and current reading interventionist, there was the potential for bias. However, I made every effort to eliminate bias and was

committed to being objective through audio recording interviews, member checking, and staying focused on the objectives of the study.

Data Analysis Results

The problem that prompted this basic qualitative study is that teachers were not consistently using reading benchmark formative data to improve student reading performance. The purpose of this study was to explore how third grade reading teachers are using data from reading benchmark assessments to effectively improve student reading performance. Through purposeful sampling, 20 teachers who met the criteria for this research were invited to participate. These 20 teachers represented approximately the top 25% of third grade reading teachers whose class averages had the highest increase from October 2018- March 2019 on the district reading benchmark assessments. Of the 20 teachers invited to participate, 13 agreed to take part in this research project. The following RQs guided this basic qualitative study:

RQ 1: How are third grade teachers using formative reading assessment data to improve student reading performance?

RQ 2: What specific instructional strategies are third grade teachers using as a result of formative reading assessment data to improve student reading performance?

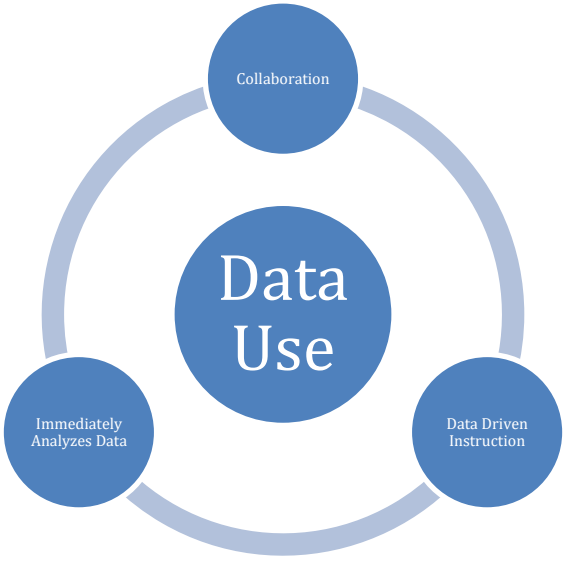
Data to answer the RQs were collected through open-ended semistructured interviews. Due to the current COVID-19 pandemic, these interviews were conducted through Zoom a telecommunications platform. These conference calls were recorded and then transcribed through Temi an audio to text software. Once the transcribed interview was exported into a Word document, I then emailed a copy of the transcribed interview to

the participant within 72 hours of the interview for member checking. Once confirmation was received from the participant that the interview had been transcribed accurately, I began pasting the transcriptions into the corresponding box of the Excel document that answered each of the interview questions. At this point, the coding process began.

The findings of this study emerged from 13 open-ended semistructured interviews. Of the five questions in the interview protocol (Appendix D), the first three were designed to answer RQ1: How are third grade teachers using formative reading assessment data to improve student reading performance? Three themes emerged during this research (see Figure 1).

Figure 1

Themes for Data Use



Theme 1: Analyzing Data Immediately

During the data analysis of the open-ended semistructured interviews, analyzing data immediately was a theme that emerged. Twelve of the participants mentioned that they are eager to get the data from the reading benchmark assessments. While the student's score does not come up on the student's computer screen, it is immediately available through the teacher's benchmark assessment platform. Teacher 4 stated, "I always look at the data immediately. I am always anxious to see how they did." Teacher 7 shared, "As my kids finish, I am pulling the data right away." Teacher 13 explained, "Well as soon as the as scores are popping up, I'm writing them down."

The participants shared that they are specifically looking for trends, standards assessed, strengths, and weaknesses. Teacher 7 said that the first thing she does is to make a chart noting which students are green, yellow, and red. Green indicates mastery, yellow indicates near mastery, and red indicates that remediation is needed. Teacher 6 shared, "I look at the data in two ways. I look over each individual student. I try to see where their strengths and weaknesses are, but I think the more important part is looking for trends in the data." Teacher 9 stated, "I look at the class average to see which standards as a whole they did not understand. I also look at each student's individual scores and see which ones they missed, and which standard it was connected to." When asked about her process for analyzing reading benchmark data Teacher 11 explained,

> I look to see where they scored really high and what areas we need to go back and look at. I'm looking at the discrepancies between students and their scores. And

> then if there's a common trend, where some students are missing a lot of the same stuff. I also just kind of like comparing what the students in my class struggled with versus what other third grade classes in my school struggled with and if there were any common trends with that as well.

Teacher 13 shared that she starts by looking at the item analysis. She looks to see where the students are struggling, where they are strong, and next steps. Teacher 6 has a business background and elaborated on her analysis process:

> I take the data and throw it into Excel, and I run trend analysis. I do a lot of graphs for myself trying to see, what the data is telling me. I don't think that's necessarily common. That is just something that I have been trained to do through my work outside of education. The data that I want has never really been there. So, I've always had to take the raw data and go off to the side and analyze it by myself.

Teacher 2 communicated,

> Well, I follow the district process and complete the data reflection tool. I really look at strengths and weaknesses first. And then from there, I look at individual student data, and I make a chart of all the standards that were assessed. And then I put the kids who are weak in that area underneath that certain standard. And then the ones who were strong, I put those in a different one.

When the participants were asked about what they find helpful in the reading benchmark data analyzation process, several teachers mentioned the Data Reflection Tool template (Appendix E) required for each teacher by the district after the administration of

each benchmark. Teacher 5 stated the Data Reflection Tool provides a guide that helps her understand her data. Teacher 13 explained,

> I use that data tool that they gave us in the beginning. I think that it's good because it kind of forces you to analyze your data in a certain way. Completing the form makes you reflective about students' weaknesses and strengths and be intentional about your action steps for moving forward.

Teacher 4 explained,

> The reflection paper helps me think about, why were these your strengths? It helps me to self-reflect and maybe it helps me think in a different way that I wouldn't necessarily think. I mean, I think it almost forces you, especially in the beginning when we were first starting this process, to reflect about your teaching and your students, your data and what they're doing, what you're doing.

The theme of immediate data analysis emerged from the research. The participants shared that they begin to analyze data right away. During teacher analyzation of the data, they are noting strengths and weaknesses. They are seeking trends and noting specific student performance. The participants shared that they find the data reflection tool helpful in the data analysis process as it guides their analysis and ensures that they are reflective users of data.

Theme 2: Collaboration

A theme of collaboration emerged during the interviews. When asked about what they find helpful in the data use process, 10 out the 13 participants specifically mentioned collaboration with other educators. Teacher 3 communicated,

> I look at the data comparatively with other teachers in my school. Then I'll go to the other teachers and I'm like, okay, I got a lot of red in this, but you had a good amount of green in this. And I feel like for me personally, it's just other teachers. Because if I see what they're doing or if we're all struggling, we'll all come together with a ton of resources outside of the Journeys book or outside of what the district may provide for us. And we'll work together to find other resources.

Teacher 6 stated, "If there is an overall trend where most students performed poorly, I take that as I didn't teach that well. I need to try a different approach. I need to ask my teammates how they rolled that out." Teacher 2 responded,

> One thing that we do at my school is that we go over the benchmark data as a school and then we get together with the grade level above us and the one below us to discuss the data in vertical alignment and come up with ideas on how to teach that standard. It was also helpful whenever I had a question, I'd reach out to the content interventionists. Like I'm sure I don't understand the standard. Can you help me? And they were willing to help outside of the data debriefings.

Teacher 13 explained, "The content interventionists often give us specific breakdowns of the standards and work with us to find resources." Teacher 5 shared, "I think the content interventionist can be very helpful in this process. If I have a question or maybe my students didn't do well on a specific standard, they are a good place to gain some understanding." Teacher 10 shared,

> I personally like going through the data as a group to see as a grade level, are we missing something? Did someone do really well on a specific standard that maybe

> I didn't do so well on? How did they teach it? I like having the content interventionists in the data debriefings. That makes it a little bit easier because we can kind of explain it from a teacher's perspective. They help us reflect on why these students missed these particular questions, and if it is happening across the district.

Teacher 8 conveyed, “I worked really close with the literacy coach that year. It was the first year I only taught ELA, so we collaborated quite a bit.” Teacher 11 elaborated by sharing that collaborating with her coworkers is what she finds most helpful. She appreciates that collaborative conversations and data comparisons between classes, so that they can work together to move all of their students forward.

The theme of collaboration emerged from the research. The participants shared that through collaborative efforts they were better able to understand and use their data. They further explained that through collaborating with their peers and content interventionist they were able to reflect on the data and their own instructional practices.

Theme 3: Data Driven Instruction

A third theme that materialized from the participant interviews was data driven instruction (DDI). The participants use these data to plan their next steps. Through this data analysis process, these teachers are analyzing their student’s strengths and weakness, and being reflective of their own teaching practices.

Teacher 9 discussed how she looks at weaknesses and reflects on her instruction of that skill by looking back at her lesson plans. She looks to see if it was whole group, small group, and what specific resources she used to teach the standard. Teacher 6

explained, “If there is an overall trend where most students were poorly performing, then I take that as, I didn't teach that well.” Teacher 7 stated, “I look at standards not mastered to see which types of questions they missed to see how I can improve my teaching.” Teacher 2 replied,

> Data drives my instruction for reading. I will look at the standard that was weak and see what I was doing wrong. Or maybe what was it that they were struggling with. I look at the individual questions that they got wrong. Sometimes it was just a little fluke, but sometimes I could see a common problem with all those kids and what they were struggling with. Then those were my small group students based on that standard. That’s really all I did.

Teacher 8 shared,

> This is the kind of data that drives my instruction for my guided reading groups and my small groups and intervention groups. So I am intentional planning my instruction, so that I reteach whatever standards they did not reach mastery. That's what we'll spend the next few weeks doing. I use my analysis from the data reflection tool to drive the instruction in my small group setting. I don't usually go back and visit any of it whole group because there's always those outlier kids that did meet mastery on it. So I reteach in the small group. Sometimes I've noticed like with one group, it might just take me revisiting it one more time, and they've mastered it. I can give an assessment and see that we can move on from it. But then there are some standards, like main idea that are really hard starting in third grade. I have to revisit it weeks and weeks and weeks to see any growth in

> mastery. So that's how I use the data. It drives my instruction in that small group setting.

Teacher 12 responded, “The reading benchmark data helps me to determine the student's individual instructional needs, so we can focus on what is it that they actually need.” Teacher 3 expounded,

> If I see a standard that my students are struggling with, I'll do a quick mini lesson. I mean, quick, and I'll put it into a station. Then I'll see those six or seven kids that really struggled with it, and I'll pull them into my small group and break it down a little bit more.

Teacher 10 responded, “My next steps are to use this information to create remediation and acceleration small groups.” Teacher 12 similarly stated, “I use the data to plan my instruction. I create differentiated lessons that I will implement during small group instruction.”

The theme of DDI developed during this project study. The participants all explained they use the data to drive their reading instruction. While the specifics of how they implement the instruction varies, the teachers use the data to determine where reteaching and acceleration are needed and for what specific students. Most participants shared that they do this primary through small group instruction while others did mention station work and whole group instruction.

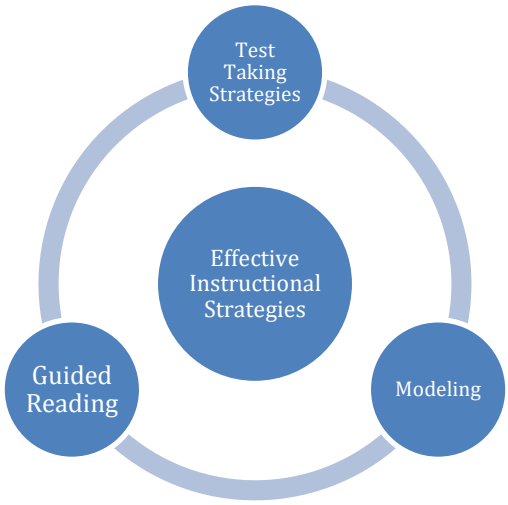
Instructional Strategies

Of the five questions in the interview protocol (Appendix D), the last two were designed to answer RQ 2- What specific instructional strategies are third grade teachers

using as a result of formative reading assessment data to improve student reading performance? During data analysis, the following three themes emerged: test taking strategies, modeling, and guided reading (see Figure 2).

Figure 2

Themes for Effective Instructional Strategies



Theme 1: Test Taking Strategies

Test taking strategies was a theme that materialized from the research. Most participants throughout the course of the interview conveyed their belief that teaching students test taking strategies is an effective way to improve student reading performance. Teacher 9 shared that usually a few days before the benchmark, she reviews test taking strategies by pulling up a previous benchmark to review the types of questions and specific test taking strategies. Teacher 2 explained that she would teach them how to

take a test online. For example, she would have them write down A, B, C, D on a piece of notebook paper and cross out the choices that they knew were wrong. She said that teaching them test taking strategies such as process of elimination was a huge factor in the increase of reading benchmark scores. She conveyed, “You also have to teach them how to play the system in third grade. They don't know how to test.” Teacher 7 explained,

> I'll go over the test and look over the questions. I want to make sure that I am teaching them to answer the questions the right way. Sometimes I think that I just haven't taught them the right wording. And sometimes I see that I need to work on a way to help them do better on the testing part. So I guess sometimes I think that it isn't the standard that they don't really know but more the way to take the test. I mean especially with third graders. They might just not know how to take the test. Really for many kids it just comes down to teaching them how to take the test. So, I guess just teaching them the wording for the way they will see the questions asked on the test.

Teacher 11 stated, “I teach them to go back and reread and highlight.” Teacher 5 shared,

> I think that going over the assessment afterwards is helpful. After testing we discussed how we found our answers and how we eliminated wrong choices, I think that this discussion and modeling really helped my kids. We discussed unfamiliar words and even looked to see if what they were highlighting was helpful.

Teacher 13 expounded,

> I think that testing strategies are huge especially for third graders who in most cases haven't taken standardized tests before. Using those benchmark assessments afterwards and looking at why this was the right answer and why these are the wrong answers is especially helpful. I think just modeling my thinking for process of elimination is a good strategy.

Teacher 11 shared, “You kind of realize if some of your students need to work on stamina or different testing strategies to help them with the next benchmark.” Teacher 8 replied,

> So we talk about a lot of times about how to eliminate answer choices for multiple choice. We do the thinking backwards test strategy, and another one that I can think of is that I give them permission to skip a question. This way they don’t get caught up on that one question and get frustrated. I tell them to skip that question and go to the next one. And then if you have extra time at the end, come back to it. I think all three of those are the main ones that we focused on that year. Um, just to get them to kind of process through. And a lot of times they would even comment to me. Number six was really hard, but by the time I got to the end of the test, I remembered how to do that question. So I went back. But again, people kind of think past that and they don't think about telling the kids that that's something they need to do.

The theme of teaching students test taking strategies emerged during the research. The participants explained that teaching students how to test is an instructional strategy that they use to increase student performance on the reading benchmark assessments. One

specific strategy included teaching students how to take tests online as this is a skill that third graders often have little exposure for taking assessments online. Another strategy included modeling thinking for teaching students the process of elimination.

Theme 2: Modeling

A second theme that appeared from the research was modeling. The participants often talked about building classroom assessments modeled after the benchmark assessments and discussed modeling their thinking. The district's content interventionists provide question stems that teachers can expect to see on benchmark assessments as a way of supporting teachers with the verbiage of the test and as a resource for teachers in questioning for discussion and for creating classroom assessments. Teacher 1 explained,

> I use the question stems to create assessments in my classroom that match the benchmarks. I have tried to learn how to write my own assessments. I try to create a benchmark of my own that reflects the benchmarks. So they see some of that wording. So when we're going through, and they say I don't understand question number three, I can go through and show them what that means. I can scaffold for them. I know it's an assessment, but it's a way to show them.

Teacher 9 answered,

> And when I tried to grow my higher ones, just through higher level questioning, I have some Bloom's question stems that I try to go off of. The district provides question stems for each standard that I like to pull from as well. And so when I'm in their guided reading groups or I'm reading with them individually, I try to use those thinking stems to really get them to think critically.

Teacher 11 stated, “I make our classroom tests to reflect the kind of questions that will be asked. So, if there's a question on the benchmark with a part A and a part B, they will have seen that before.” Teacher 7 shared that during her whole groups lessons she intentionally changes her question style, so students see and hear the type of questions that are on the reading benchmarks. Teacher 8 elaborated on why she thinks modeling is so important:

> For me, I think modeling is the most important thing. I think people sometimes take for granted that we as adults know how to come to main idea, we know cause and effect, we assume the kids do too. And so, I think sometimes breaking it down to a super easy level and literally modeling my thinking out loud. Later, I’ll hear them talking through it on their own. Like when the teacher said that she thought about this, and then she thought about this and this and then they came to the answer. But it's things that we as adults take for granted because we know how to do it. We need to stop and break it down and teach them how to do those kinds of things.

Teacher 12 shared, “We met once a month to build assessments based on the benchmarks. I felt it was more helpful than years past because we were able to focus on the types of questions to ask and how to ask them.”

The participants shared that modeling is an effective instructional strategy for improving students’ reading proficiency. They explained that modeling thinking of both skills and testing strategies are important. Some participants communicated that they model their classroom assessments after the reading benchmark assessments as an

instructional strategy for improving student reading performance on the benchmark standards.

Theme 3: Guided Reading

Getting the students on grade level through guided reading is a third theme that emerged from the research. According to Teacher 9, getting students on grade level is key. She explained that if students don't understand the words they are reading, they will not ever do well on the benchmark assessments. She further stated,

> My strong suit is getting kids who are reading below grade level to be able to read on grade level. I really enjoy that. And I think that's why I, do fairly well as a third grade teacher. I'll focus on different strategies that way like helping with phonics or they need help with blends. It's important to really pinpoint their issue and get them to be able to read the passage.

Teacher 1 stated that if students are not reading on grade then there is no way they can read the test. She starts working with them right away. She explained, "I start meeting in small groups with those kids, I start working on their deficits. So they might score really low on that first benchmark. But by the time that second benchmark gets there, I'm going to get them to a third grade level. They have to be able to read it to be able to even do the work. So, I start working on those kids.

Teacher 3 conveyed,

> I realized it's the more complex ideas that they're not grasping. It's not necessarily, they don't understand author's purpose or main idea. They just didn't understand the words and the complexity of the text. And so that's just the hard part, I'm

trying to navigate them through reading that third grade text. Even though they're not on the third grade reading level I tell them you can figure this out, just look at the words, you know, and find similarities. I think the most effective strategy for my struggling students is finding texts, doing the same thing, but on their level.

Teacher 10 explained that providing easier texts and graphic organizers helps her to meet kids where they are. She does this by providing easier texts and using graphic organizers. She further states that if they cannot read the benchmark then they can't do the work.

A theme of guided reading emerged from the research. The participants shared that in order to increase student reading performance, students need to be able to access grade level texts. They further elaborated that often times it is not that students have not mastered the standard or that they cannot perform the skill, it is that they cannot read the text (see Table 2).

Table 2

Themes and Descriptions

Theme	Description
Analyzes data immediately	Begins the data analysis process within 24 hours of reading benchmark

Collaboration	Cooperates with peers, literacy coach, and/or content interventionist about data
Data driven instruction	Uses data to plan for future instruction
Test taking strategies	Teaches students strategies for taking assessments
Modeling	Demonstrates thinking aloud
Guided reading	Uses a variety of strategies to make sure students have foundational reading skills

Salient Data and Discrepant Cases

I was intentional in reviewing the data numerous times to ensure that all the emerging themes were captured in the data analysis and in the research findings. After this intense analysis, I found no discrepant cases. There were times when every participant did not mention a specific theme, but there were no contradictions to the themes that emerged in this research. The participants conducted a member check to ensure that their interviews had been transcribed accurately. This process aided in ensuring accurate and credible findings for this study. According to Creswell and Creswell (2018), member checks help to aid in addressing discrepant cases in the data analysis process.

Evidence of Quality

Every effort was made to ensure that the data were collected and reported accurately. Prior to conducting research, I received IRB approval. Additionally, I was granted permission to conduct the research from the director of assessment and accountability after completing a formal research request (Appendix B). After receiving IRB approval and site permission, I was given the names of possible participants based in the purposeful sampling criteria. I sent an email that contained an introduction of myself and the project (Appendix C).

Every effort was made to create a safe and comfortable participant-researcher relationship. I was careful to not ask leading questions and to remain open to any findings in an effort eliminate any researcher bias. Names were not recorded, and the participants were coded as Teacher 1 though Teacher 13. The data is stored on my password protected personal computer where it will be kept for the next 5 years. The data were collected on Zoom through open-ended semistructured interviews. The recorded interviews were transcribed through Temi. Within 72 hours of the interviews, the participants were provided with a copy of their transcript for member checking. Once receiving feedback from the participant, the transcription for each question was copied and pasted in an Excel document for coding. These data went through three cycles of coding: descriptive, concept, and patterns and themes. These data were analyzed numerous times to ensure accuracy and validity.

Limitations

This research may have been limited as this study was only conducted of third grade reading teachers. Therefore, the findings may not be generalizable to other grade levels. Another limitation of this study was that these data are only representative of one year and includes only one form of data collection. This limited data collection did not allow for the triangulation of data. An additional possible limitation of this study was researcher bias. As a previous third grade teacher and current reading interventionist, there was the potential for bias. However, I made every effort to eliminate bias and was committed to being objective.

Summary

The purpose of this basic qualitative study was to explore how third grade reading teachers are using data from reading benchmark assessments to effectively improve student reading performance. Through this basic qualitative design, exploration of teachers' data use and specific instructional strategies based on these data was conducted. Qualitative data was gathered through open-ended semistructured interviews of the top 25% of third grade reading teachers' whose student classroom averages increased the most for the 2018-2019 school year from October 2018-March 2019 on the district reading benchmark assessments. These interviews were transcribed and coded for themes and patterns. This approach and design yielded data that informed the two RQs that guided this project study.

According to the findings of this study, immediately analyzing data, collaboration, and DDI were the themes that emerged guided by RQ 1. When analyzing

results for RQ 2, test taking strategies, modeling, and guided reading emerged as themes. In section 3 of this project study, I will discuss the project itself through goal description, study rationale, and review of the literature that supports this project.

Section 3: The Project

Introduction

In this basic qualitative study, I explored how third grade reading teachers are using data from district reading benchmark assessments to effectively improve student reading performance. Based on these data and current literature, this study aligns with the PD genre. I developed a 3-day PD entitled *Strategies for Using Reading Benchmark Data to Improve Student Performance*. The project components include (a) purpose, goals, outcomes, and target audience; (b) outline, timeline, and activities; (c) materials, implementation plan, and evaluation plan; and (d) an hourly detailed training for 3 days. In Section 1 of the literature review, I included current research of formative assessments, benchmark assessments, and factors that impede teacher's data use.

This qualitative research was conducted through 13 open-ended semistructured interviews. The focus of the research was to explore how these teachers are using formative assessment data to improve student reading performance and specific instructional strategies as a result of these data. The gap in practice at the local level and research findings from this project study were used to design a 3-day training session that would provide third grade reading teachers with PD that could grow teachers' capacity for data use. A description of the project is included, along with the purpose, goals, learning outcomes, target audience, outline components, timeline, activities, trainer notes, module formats, Power Point, implementation plan, evaluation plan, hour by hour details of the training, the rationale, and the review of the literature.

Description and Goals

The purpose of this basic qualitative study was to explore how third grade reading teachers are using data from district reading benchmark assessments to effectively improve student reading performance. Based on the findings, the project that resulted from this study was a 3-day PD for third grade reading teachers. These PD topics related to the six themes that materialized from the two RQs. These include DDDM, data culture, collaboration, analyzing data, data literacy, DDI, and instructional strategies. The goal of this project was to increase teacher capacity to effectively personalize pedagogical practices to meet students' individual needs based on formative data at the local level. This can allow educators the opportunity to engage with research-based best practices to hone their data use skills. The project includes 18 hours of PD to be divided among 3 days that will last for 8 hours each. These will be three consecutive Saturday sessions. These educators will collaborate and participate in PLCs during this PD. Educators must learn to use data by application not by abstract practice (Mandinach & Jackson, 2012). Thus, teachers will use their benchmark assessment scores from the fall 2020 benchmark. This training will be conducted largely through Power Point delivery and engagement activities.

Topics covered in this training include the following:

- DDDM
- data culture
- collaboration
- analyzing data

- data literacy
- DDI
- instructional strategies

These professional learning topics are connected to the themes that materialized from the research. Theme 1 addressed teachers' analysis of their reading benchmark data. The findings indicated that they analyzed their data immediately and identified strengths, weaknesses, and trends. This theme will be addressed in the PD through the DDDM, data culture, and data analysis topics. Theme 2 addressed the participants' collaboration and collaborative process for data use. The PD topic collaboration will address Theme 2. Theme 3 addressed the participants' DDI. They shared how they use the data from the benchmarks to make instructional plans. Theme 3 will be covered in the DDI topic of the PD. Theme 4, Theme 5, and Theme 6 addressed the participants' feedback on what they thought the most effective strategies were for increasing student's performance on the third grade reading benchmark assessment. The themes that emerged were test taking strategies, modeling, and guided reading. These themes will be covered in the instructional strategies portion of the PD.

Rationale

Findings from the basic qualitative case study presented in Section 2 served as the determining factor for this project. PD was chosen as the genre for this project. Through the research, effective data use practices emerged. Therefore, due to the inconsistency in third grade teachers' use of reading benchmark data, this PD is designed to provide teachers with effective data use practices and specific instructional strategies that can

help to increase student reading performance at the local level. These themes included immediate data analysis, collaboration, DDI, test taking strategies, modeling, and guided reading.

PD is appropriate for the project as PD at the local level is needed to grow teachers' capacity for data use. According to Mandinach and Jackson (2012), PD is necessary to build capacity and efficacy in data use practices. PD is needed because most teachers do not consistently and purposefully connect their instruction to student outcomes. In order to cultivate a culture of data use, teachers need PD that grows their capacity for data driven processes (Mandinach & Jackson, 2012; Martone et al., 2018).

Review of the Literature

In Section 1, I researched my conceptual framework, Mandinach et al.'s (2006) DDDM, formative assessment, benchmark assessment, and factors that impede teachers' data use. Findings from this project study indicated several themes. In regard to RQ 1, three themes emerged. These themes included (a) immediate data analysis, (b) collaboration, and (c) DDI. In regard to RQ 2, three themes emerged. These themes included (a) test taking skills, (b) modeling, and (c) guided reading. To address the findings of my research, I conducted a second literature review.

The literature review indicated that PD would be an appropriate genre for this study. This genre is appropriate as teachers at the local level are not consistently using formative benchmark data to improve student reading performance, creating a gap in practice. Teachers are often at a loss on how to effectively use data as their driving force for planning instruction. If teachers are to aid students in attaining high academic

achievement, they must become proficient in the data analyzation process (Bambrick-Santoyo & Lemov, 2018; Mandinach & Gummer, 2016; Niemeyer et al., 2017). PD at the local level is needed to grow teachers' capacity for data use.

A review of the literature was conducted to validate the project content. The following databases were used to locate the sources used in this review of the literature: ProQuest, Educational Resources Information Center (ERIC), Google Scholar, EBSCO Discovery Service, SAGE, and Science Direct. This literature review is organized into PD, data analysis, collaboration, DDI, test taking strategies, modeling, and guided reading. Key search terms included *data driven instruction, data use, data literacy, differentiated instruction, individualized instruction, targeted instruction, adaptive instruction, PD, professional learning, effective data analysis, collaboration, professional learning communities, collaborative inquiry, test taking strategies, test taking skills, modeling, think-aloud strategy,* and *guided reading*.

Professional Development

PD that increases teachers' understanding of data driven practices is needed to create a data culture (Mandinach & Jackson, 2012). Andragogy is a collaborative process of adult learning that engages learners and will foster a data driven culture. Adults often need to understand why they must learn something before they begin and have a desire to be seen as self-directing (Knowles et al., 2015; Remenick & Goralnik, 2019). Adults have varied experiences that create large diversity among the learners, which makes individualization of teaching and learning necessary. Adults become ready to learn the things that they need to know when they need to know those things. Adult learners are

often life centered, assignment centered, or problem centered (Knowles et al., 2015; Remenick & Goralnik, 2019). They learn when the learning is applied to a real life context. Adult learners are often motivated if the learning is related to promotions, increased salaries, improved job gratification, self-esteem, and quality of life. Using the andragogical process model for learning can aid in establishing a data culture (Knowles et al., 2015).

PD can be powerful (Bambrick-Santoyo & Lemov, 2018). The purpose of PD is for teachers to learn and grow as this applied new learning improves instructional practice that can positively impact student outcomes (Tait-Mccutcheon & Drake, 2016). The enhancement of students' education should be the goal of all PD. There are three essential principles of effective PD (Tait-Mccutcheon & Drake, 2016). These include opportunities for teachers to grow their craft, knowledge of how educators acquire new information, and growth of teacher communities. Teachers must be willing to reassess their professional knowledge and adapt to new learning (Tait-Mccutcheon & Drake, 2016). Those in charge of leading PD must provide opportunities for teachers to draw from what they know, connect the new learning in a meaningful context, and allow the participants to take ownership for the new learning (Tait-Mccutcheon & Drake, 2016). It is imperative for teachers to make connections to old beliefs for new learning to take place (Kalinowski et al., 2019; Tait-Mccutcheon & Drake, 2016). This aligns to the six principles of andragogy. Effective PD promotes a social context for shared knowledge to occur. This collaborative community promotes teacher growth (Abu-Tineh & Sadiq, 2017; Ebbeler et al., 2016; Sims & Fletcher-Wood, 2020; Tait-Mccutcheon & Drake,

2016). For changes in practice to occur, PD should be well-planned and engaging (Kalinowski et al., 2019; Tanner et al., 2017).

This culture will continue to thrive as long as there are goals for data use (Mandinach & Jackson, 2012). Effective PD has teachers looking at data in front of them not data in abstract form (Bernhardt, 2016). Most teachers are not trained to transform data into instructional strategies that meet the needs of the students (Mandinach & Jackson, 2012; Martone et al., 2018). Teachers are often at a loss when it comes to effectively utilizing data as their driving force for planning their instruction (Niemeyer et al., 2017).

According to Bambrick-Santoyo and Lemov, (2018), PD that covers too much is not effective. PD focus should be narrow in design and the emphasis should be on what you want the participants to practice. Lecture is ineffective without practice (Sims & Fletcher-Wood, 2020). Practice should be given to allow the participants to apply the skills they are lacking (Bambrick-Santoyo & Lemov, 2018). Without the opportunity for practice, the new learning will not be meaningful (Ebbeler et al., 2016). Practice is essential. PD will be much more effective if there is real world application. The most effective PD is when there is a combination of pedagogical practices and subject knowledge (Sims & Fletcher-Wood, 2020).

There must be follow up for PD to be effective (Abu-Tineh & Sadiq, 2017; Bambrick-Santoyo & Lemov, 2018; Sims & Fletcher-Wood, 2020). PD must be continual if it is to be meaningful and solidify learning. Single day PD is ineffective (Sims & Fletcher-Wood, 2020). The most effective PD takes place over time and when delivered

by an expert outside of the organization (Kalinowski et al., 2019; Sims & Fletcher-Wood, 2020). Effective PD improves both teaching and learning (Tait-Mccutcheon & Drake, 2016). Effectiveness of PD can be assessed by changes in teachers' instructional practices and impact on student learning (Kalinowski et al., 2019).

Analyzing Data

The purpose of data analysis is to determine if targets for learning have been met and then adjusting instruction to meet the needs of the students (Mandinach & Schildkamp, 2020). For continuous school improvement, deep data analysis is necessary. Deep data analysis provides information as to what is working and what is not working (Bernhardt, 2016). It is imperative that data be analyzed in real time (Bambrick-Santoyo & Lemov, 2018). Educators must have access to data promptly (Farley-Ripple & Buttram, 2015). According to Bambrick-Santoyo and Lemov (2018), data analysis should begin within 24 hours but no longer than one week of the completed assessment. Each day that passes without data analyzation and a new plan for instruction is another day that students are not getting what they need. Data expires quickly therefore there needs to be "immediate responsiveness" in analyzing data. This allows for execution of a new implementation plan (Bambrick-Santoyo & Lemov, 2018). Analyzing data allows educators to differentiate instruction, hypothesize about teaching strategies, use multiple sources of data for decision making, modify instructional practice, focus on item level for richer understanding of outcomes, gain insight into all students, and identify areas that need to be retaught (Mandinach & Jackson, 2012).

According to Bernhardt (2016), there are three components that school leadership need to address for teachers to be able to use data successfully. Teachers need appropriate data in a means they can use, structures for professional collaboration, and leadership that hold them responsible for data use. For teachers to be successful users of data there are five preconditions: using appropriate data, a shared vision, support by leadership, structures for collaboration, and strategies for acquiring new instructional practices (Bernhardt, 2016). Formative assessments should measure what students should know and what they can do. Appropriate assessment data shows how students are learning and how teachers are teaching. These assessments should aid teachers in modifying instruction to get different outcomes and in noting who is getting better outcomes and how (Bernhardt, 2016). Formative assessment data must be aligned to learning standards in order to monitor student progress toward summative assessment (Bambrick-Santoyo & Lemov, 2018; Bernhardt, 2016). Committing to a shared vision serves as an agreement about why they are collaborating and what they believe will be impactful for student learning. A shared vision creates an understanding of teaching and assessment (Bernhardt, 2016). However, without the support of leadership a shared vision of data use will be futile. School leadership must monitor the use of data, facilitate the implementation of the vision, hold teachers accountable for data use, ensure that there are effective structures, enforce collaboration, safeguard teacher collaboration time, monitor school data, and ensure responsibility of teachers and teams for outcomes (Bernhardt, 2016). Structures for collaboration must be in place. There must be dedicated meeting times for collaboration of data results and next steps. Additionally, for teachers to be

effective users of data there is a shared understanding that the team members are learning from each other in an effort to enhance both teaching and learning (Bernhardt, 2016).

Primarily data should be collectively evaluated for interpretation and problem identification (Mandinach & Schildkamp, 2020). This does not imply that data should never be used for accountability purposes. Accountability is needed as it makes a system more transparent, and it can be connected to data use for school improvement as data used in such a system can reveal aspects that need improvement (Easley & Tulowitzki , 2016). Data use for accountability and data use for school improvement are both needed. Accountability without improvement is futile (Mandinach & Schildkamp, 2020)

Data literacy is a key element in using data in a way that positively affects education (Ebbeler et al., 2016; Marsh & Farrell, 2015). Educators must be able to turn data into instructional action (Keuning et al., 2017). When considering benchmark assessments and data use, it is imperative that the assessment align with the expected student outcomes. The rigor of the instruction must match the rigor of the assessment (Bambrick-Santoyo & Lemov, 2018). Educators must be able to analyze data, turn this analysis into information, and use the information to make decisions that enhance teaching and learning (Ebbeler et al., 2016). Data reports can be helpful when analyzing data. Data reports should offer succinct information where interpreting data is simple and intuitive (Bambrick-Santoyo & Lemov, 2018). Data reports should include the question level, standard level, student level, and whole class level. Including the question level aids teachers in determining not only the questions that students missed but the wrong choices that they made (Bambrick-Santoyo & Lemov, 2018). This allows for deeper data

analysis that can give insight into why a student missed what they missed. This type of analysis provides information that may help the teacher determine if it was the skill the student missed, the type of question, the vocabulary, or if there was another reason the student chose the incorrect answer (Bambrick-Santoyo & Lemov, 2018). Data reports including information about the standards allow teachers to note what standards were and were not mastered. Including the student level and class level provides performance data individually and collectively (Bambrick-Santoyo & Lemov, 2018). Deep data analysis includes looking for trends and locating patterns in data. This aids teachers in determining next steps for instruction. If all of the students mastered a skill or a standard, then the standard would not need to be retaught (Bambrick-Santoyo & Lemov, 2018). Conversely, if a large number of students missed a skill or standard, the implementation plan would include reteaching. This type of data analysis helps teachers make the most of instructional time (Bambrick-Santoyo & Lemov, 2018). For data to be used as the driving force for improving education, teachers must be data literate (Ebbeler et al., 2016). The best use of data leads to changes in instruction (DuFour & Reeves, 2016).

Collaboration

Collaboration is a vital component of data use. Collaboration of data allows teachers to work together with others to discuss findings, reflect on instructional practices, and share their experiences (David, 2018). Collaboration among educators in data use is an effective strategy for building collective efficacy (Jones & Thessin, 2015; Keuning et al., 2017; van Gasse et al., 2017). Senge (1990) stated, “Collaboration is vital to sustain what we call profound or really deep change, because without it, organizations

are just overwhelmed by the forces of status quo." A collaborative community is valuable as it allows for the group to benefit from each other's professional strengths (Jones & Thessin, 2015; Keuning et al., 2017; van Gasse et al., 2017).

This collaborative process promotes a systematic forum for professional and reflective discourse that leads to more effective instruction (Tanner et al., 2017). Data use is a social process. Providing a structured inquiry time for collaboration and data conversations is essential in building teachers' capacity for translating data findings into instructional practices. According to Bambrick-Santoyo and Lemov (2018), data meetings should be safeguarded as these meetings are sacred times. There should be many opportunities for data collaboration (Bernhardt, 2016). These collaborations should include: a collective commitment to improving student learning, agreement on what students should know and how it will be assessed, a timeline for assessing student learning, and an implementation plan for addressing students who have mastered the content and those who have not mastered the content (Bernhardt, 2016). This collaboration also includes analyzing data, sharing of professional knowledge, supporting each other, accountability, and a focus on improving instructional practices and student learning (Bernhardt, 2016; Keuning et al., 2017).

This collaborative inquiry process provides specific information to drive instruction (DuFour & Fullan, 2013). Collaborative inquiry is used to solve problems and helps to create a collaborative culture (Carpenter, 2017). This cyclical process of inquiry and reflection encourages data conversations that grow teachers' data use capacity and are much more effective than data discussion that assigns blame (Datnow & Hubbard,

2015a). Reflective teaching can be a very effective strategy when discussion is based on student data (DuFour & Reeves, 2016). It is an iterative method for deepening professional skills, facilitating changes in instructional practice, and analyzing data with a focus on inquiry (Deluca et al., 2017). Collaborative inquiry is often implemented through PLCs and encourages a shared determination to support student learning (DuFour & Fullan, 2013). A goal of collaborative inquiry is to seek solutions to real problems (Datnow & Hubbard, 2015a). This process promotes continued school improvement through collaborative teams that are mutually accountable (DuFour, 2015; DuFour et al., 2004; DuFour & Eaker, 2009). Through the collaborative inquiry process, team members cooperate to make informed decisions about instruction based on the data (DuFour, 2015; DuFour et al., 2004). Teachers then collaborate to identify students who did not demonstrate proficiency, identify students who need accelerated learning, consider areas where they can learn from their fellow teachers to improve their instructional practice, and collaborate with colleagues to identify areas where there is needed improvement (DuFour, 2015; DuFour & Eaker, 2009). This collaborative inquiry process creates a culture of data use that promotes continuous school improvement that never stops moving forward (DuFour et al., 2004; DuFour & Fullan, 2013).

Effective use of data begins from collaborative processes that lead to a richer understanding of the data and improved decision making based on data findings (Farley-Ripple & Buttram, 2015). Research indicates that these collaborative sessions do not have to be formal nor do they need to include a data expert. Educators learn from one another through their data conversations and reflections (Farley-Ripple & Buttram, 2015).

According to Datnow and Hubbard (2015a), building data analysis skills can be challenging. Educators need to increase their capacity for analyzing assessments and test questions and then transfer that analyzation into instructional practices (Farrell & Marsh, 2016). Teachers need to be able to synthesize data from a variety of sources to make informed instructional decisions (Filderman & Toste, 2017). This can be problematic as teachers are accustomed to gathering data from multiple sources but most lack the capacity to make sound instructional decisions based on these data. Most teachers simply have not received the PD to acquire this skill (Filderman & Toste, 2017). Through the process of reflection of instructional practice and student needs, teaching is enhanced, and deeper learning occurs for students (Garner et al., 2017).

PLCs allow for sharing, co-analysis of data, and reflection that improves both teaching and learning (Deluca et al., 2017). This addresses adult learning theory as this promotes a community for shared learning to occur through the adult learner experience. Collaborative inquiry is the framework within PLCs. PLCs promote enhanced practices as educators are learning together (Deluca et al., 2017; DuFour & Eaker, 2009; DuFour & Reeves, 2016; Jones & Thessin, 2015). PLCs are defined as a team who has shared goals and through collaborative data analysis efforts work to improve teaching and learning (Jones & Thessin, 2015). Collaboration though PLCs is a core characteristic for continuous academic improvement (DuFour & Eaker, 2009; DuFour & Reeves, 2016; Jones & Thessin, 2015). According to DuFour and Reeves (2016), there are four questions that guide the work of the PLC. These questions include the following:

What do we want students to learn? How will we know if they have learned it? What will we do if they have not learned it? How will we provide extended learning opportunities for students who have mastered the content?

PLCs can be an essential component for continuous school improvement (DuFour & Reeves, 2016). PLCs offer a structure for data use that can lead to increases in student achievement. In order to effectively use data, norms for data use are needed. These norms are created within the context of professional communities (Farley-Ripple & Buttram, 2015). Within these communities, there must be trust, reflective dialogue, and student learning must be the focus. These aspects of the PLC culture influence the quality of the collaboration (Farley-Ripple & Buttram, 2015).

Data Driven Instruction

Analyzing data allow teachers to use DDDM to modify instruction to meet the needs of the students. This process is known as DDI (Gleason et al., 2019). DDI allows for the personalization of instruction based on student needs. DDI requires assessment, data, and instruction (Marsh & Farrell, 2015). Some instructional changes include spending an increased or decreased amount of time on a subject, grouping of students for differentiating teaching, remediation, and teaching content in a new way. In order for DDI to occur, the data should communicate what students understand and what they do not understand, and the data should indicate student weaknesses. DDI allows the teacher to tailor instruction based on student needs (Gleason et al., 2019). It has long been accepted that using data to make instructional decisions improves student outcomes (Odom & Bell, 2017). According to Bambrick-Santoyo (2010), DDI creates a place

where teaching and learning flourish. Effective instruction is about students learning the content not if the teacher taught the content (Bambrick-Santoyo & Lemov, 2018)

Differentiated instruction is a pedagogical practice used by classroom teachers to increase student learning (Tucker, 2016). Differentiated instruction is student centered (Tomlinson, 2017). Differentiated instruction is a framework that includes a variety of teaching strategies that maximizes student learning and is a cyclical process (Smets, 2017). This process includes preassessment to determine student readiness based on state and local standards. This preassessment can also include information about student's interests, prior knowledge, and learning profiles (Smets, 2017). Differentiated instruction is an instructional practice to meet the needs of all students by changing the content, the process of how they learn the information, and how they demonstrate what they have learned (Finley, 2018; Tomlinson, 2017). Differentiated instruction is for all students (Tomlinson, 2017). The teaching practice of differentiated instruction requires that teachers adjust curriculum, resources, and student scaffolding to create equal opportunities for students to access the curriculum (Valiandes & Neophytou, 2018).

Differentiated instruction involves the planning of instruction for whole class and small groups based on diverse student needs as determined by preassessment data (Smets, 2017). The teacher implements the differentiated instructional plan and then assesses the learning. After completion of this summative assessment, the process begins again (Smets, 2017). This practice provides information about the reality of student needs as opposed to teacher perceptions of student learning (Bambrick-Santoyo, 2010). Learners benefit from this practice as it allows teachers to seek out ways to improve how and what

students are learning. For differentiated instruction to be successfully implemented, there must be collaboration and a data culture. Structures need to be in place that allow for collaboration with peers to discuss challenges and successes (Bernhardt, 2016).

Test Taking Skills

Test taking skills are defined as a mixture of applying an understanding of how tests work to the benefit of the test taker (Khoshsima et al., 2018; Tunaz & Tüm, 2019). These are skills that can be taught or developed (Nosrati, 2015). There is a positive correlation between students' knowledge of test taking skills and assessment outcomes (Jia-Ying Lee, 2019; Nosrati, 2015; Tunaz & Tüm, 2019). There is a common belief that teaching test taking skills improves test scores (Jia-Ying Lee, 2019). Some effective strategies include making inferences, using context clues, and identifying types of questions (Tunaz & Tüm, 2019). Other strategies include going back to the text, using visualization techniques, and reviewing answer choices. Test taking strategies allow test takers to use structure and attributes of the assessment to increase testing results. Some additional strategies include using key words, time management, returning to a difficult question at the end of the test, and rereading (Nosrati, 2015).

Test taking strategies empower test takers (Prinz et al., 2019). The most effective strategies vary depending on the type of assessment. Some research indicates that test taking skills should be embedded within the curriculum as this solidifies the connection between the two (Tunaz & Tüm, 2019). According to Khoshsima et al., (2018), there are two types of test taking strategies: test management and test wiseness. Test management strategies can be acquired through test preparation such as students practicing mock tests

under testing conditions. Test wiseness includes test taker's experiences and understandings of how to test (Nosrati, 2015). An example of this includes using information from a previous question that reveals information that aides in answering the current question. There are four language strategies that help in taking assessments. These language strategies include retrieving information, practicing information, covering information, and communication. Test taking strategies can decrease student anxiety and increase students' confidence (Nosrati, 2015).

Modeling

Modeling is an instructional practice that involves the teacher modeling thinking (Hollingsworth & Ybarra, 2009). Research indicates that effective modeling is an instructional strategy that aids students in the learning process as it allows students to witness the teacher's thinking strategy (Hollingsworth & Ybarra, 2009; Sönmez & Sulak, 2018). Modeling allows the teacher to demonstrate thinking while problem solving. Modeling is more than demonstration. It is sharing of the thinking process for problem solving that provides students with a systematic model that they can mimic (Hollingsworth & Ybarra, 2009).

Hollingsworth and Ybarra (2009) concluded that teaching is more effective when students see a model. Modeling is a powerful strategy as students get to see and hear a professional as they navigate the process. Modeling allows the students into the mind of the teacher to view the process (Hollingsworth & Ybarra, 2009; Sönmez & Sulak, 2018). This process allows the student to acquire their own think aloud skills. Modeling is an explicit direct instruction strategy that provides scaffolding for students (Webb et al.,

2019). Direct instruction is essential for students in comprehension. Many students struggle with reading as they lack experiences and needed vocabulary to comprehend what they read. This impacts student's ability to connect to the text which can cause trouble with comprehension of the text (Jackson, 2016).

Modeling thinking as an instructional strategy can also be referred to as think aloud strategy that involves the teacher voicing his or her thinking process (Jackson, 2016). Think aloud strategy is a visual process (Jackson, 2016; Sönmez & Sulak, 2018). Reading strategies are strategies that readers can apply to problem solve when they do not comprehend the text. Directly teaching reading comprehension strategies through modeling has a significant effect on comprehension (Jackson, 2016). When applying this strategy to reading comprehension it includes making predictions whereas students hypothesize about the text, visualize what they read, connect previous knowledge to the text, talk about information in the text that they do not understand, and use fix up strategies to better understand what they read. Teachers model this thinking process and then students mimic the process (Sönmez & Sulak, 2018). Students can visually see the process and monitor their own thinking. This is a metacognitive process that aides in developing reading comprehension (Jackson, 2016). Modeling reading strategies promotes higher order thinking and comprehension in the lower grades. Teaching students to think about their thinking has a positive impact on reading comprehension. This is especially true when the teacher modeling of these practices is continuous (Jackson, 2016).

Guided Reading

Teaching reading in small groups using leveled texts has become a common practice in classrooms and is known as guided reading (Donnelly, 2019; Young, 2018). Guiding reading is an instructional strategy that includes pairing students up with texts that are on their instructional level to aid them in meeting their next reading goal (Richardson, 2016). During this instructional practice, teachers differentiate instruction to meet the varied needs of the students and focuses on fluency and comprehension (Young, 2018). Students are typically grouped together who have the same reading habits (Mikita et al., 2018; Young, 2018). Grouping is fluid and changes as student's meet their goals. This practice typically encompasses working with students on their instructional level using a leveled text (Donnelly, 2019; Young, 2018).

Guided reading is an effective practice for increasing student's reading achievement (Young, 2018). This is done through intentional systematic instruction where students are taught to problem solve using reading and word solving strategies. Through running records, the teacher scaffolds as needed to respond to the needs of the students as they become more successful independent readers (Richardson, 2016). This instructional practice is intended to increase students' independent reading ability and is geared toward comprehension, fluency, and specific reading strategies (Young, 2018).

While the implementation of guided reading varies, a common practice includes activities before reading the text, during the reading of the text, and after reading the text (Young, 2018). The structure of a guided reading lesson typically includes an introduction to the text, reading the text, discussing the text, teaching of processing

strategies, and word work (Fountas & Pinnell, 2017). Focusing on one text, allows readers to build fluency and comprehension. Scaffolding texts for guided reading allows for differentiation of instruction (Donnelly, 2019). Guided reading provides the reader with a support between modeling and independent practice (Richardson, 2016). Extended time focused on a text allows the teacher to provide intentional scaffolding. Teaching students how to decode unknown words provides scaffolding that increases fluency and comprehension. This could include covering up the word and showing it slowly and breaking the word into syllables (Donnelly, 2019; Richardson, 2016). Teaching vocabulary in a systematic way provides scaffolding that aids readers. This could include deconstruction of words and using synonyms (Donnelly, 2019). Allowing students to read the text multiple times increases their understanding of the text. Scaffolding complex texts allows the reader to grow their reading proficiency and increases student learning (Donnelly, 2019; Richardson, 2016).

Taking running records allows teachers to provide scaffolding and targeted feedback during guided reading (Mikita et al., 2018). Running records provide information that the teacher can analyze to determine the student's reading behaviors by identifying patterns and trends. Readers use meaning, structure, and visual cues to solve words. Reading accurately is a combination of these three sources of information (Fountas & Pinnell, 2017; Mikita et al., 2018). Through guided reading, teachers are able to teach readers how to implement the cues that they are not using. When readers use meaning to solve unknown words, they are using words that make sense within the context of the reading (Fountas & Pinnell, 2017; Mikita et al., 2018). When a student

makes an error, the teacher may ask the student if that makes sense. Structure cues include grammar and oral structures up to the point of error (Fountas & Pinnell, 2017; Mikita et al., 2018). If a student does not use structural cues, the teacher may ask them if what they said sounds right. Visual cues include using letters, sounds, and word parts (Fountas & Pinnell, 2017; Mikita et al., 2018). If a student is not using visual cues, some prompts the teacher might use include guiding the students in using initial sounds, word parts within the unknown word, or using ending sounds. Readers can use all three sources of information but still make an error in solving the unknown word (Mikita et al., 2018).

This focus of this project study was on the inconsistent use of third grade reading benchmark data at the local level. Through open-ended semistructured interviews several themes emerged. Themes for data use included immediate data analysis, collaboration, and DDI. Emerging themes for effective instructional strategies based on the benchmark data included test taking strategies, modeling, and guided reading. PD was chosen as the genre for sharing the findings of the research. Current scholarly literature provided research on adult learning theory, effective use of data, effective research-based instructional strategies, and the effectiveness of PD in increasing teacher capacity for data use.

Project Description

In order to meet the purpose of the study, I explored how third grade reading teachers are using data from district reading benchmark assessments to effectively improve student reading performance. Due to the gap in practice at the local level, the findings of this research, and review of the literature, this PD was developed. This project

was designed to increase teacher capacity to effectively personalize pedagogical practices to meet students' individual needs based on formative data. This 3-day PD is designed to begin with two days of front loading and engaging in deep data analysis activities. The third session will be a collaborative session for teachers to engage in deep analysis and in creating an action plan for personalizing student learning based on their data analysis of their current reading benchmark data. The participants will need to be engaged in this PD, collaborate, and bring their reading benchmark data.

There are potential barriers to this project. The implementation of this project is proposed for Spring of the 2020-2021 school year. However, due to the current COVID pandemic, the project may have to be postponed until fall benchmarks during the 2021-2022 school year or may have to be delivered virtually. In order to implement this project, several actions must be taken. I will conduct a meeting with the district instructional support team to discuss my project and gain permission to implement my project. Based on the data beliefs of the district office instructional support team and their interest in growing a more effective data culture, permission and support will likely be easily attained. With the support of the instructional support team, I will identify third grade reading teachers who may be interested. Assuming that permission is granted from the instructional support team, the session will be conducted in Spring of 2021. Each session will begin at 8:00 a.m. and end at 3:30 p.m. There will be no financial cost to the district. However, I will speak with district senior leadership to see if a stipend could possibly be offered to participants. Educators in this district are typically paid $150 a day for Saturday PD. Needed materials for this project include

- room large enough to accommodate participants (20-40) participants
- computer
- projector
- sticky chart paper or nonstick chart paper and tape
- sticky notes
- markers, pens, pencils, and highlighters (for each table)
- notebook paper
- copies (Video Sheet, Data Culture and DDI Survey, Daily Agenda, Daily Sign in Sheet, Exit Ticket, Matching cards for icebreaker activity, Sample benchmark data, Analysis and Action Plan Handout, Differentiated Instruction Article, PD Evaluation Sheet, Analysis and Action Plan)

Project Barriers

Time is a potential barrier. This is especially true for this PD since the third session needs to take place within a week of the third quarter reading benchmark assessments have been administered. The participants of this PD will have to give up three Saturdays in the Spring. Based on research, many teachers lack the capacity to use data effectively (Martone et al., 2018; van Geel et al., 2017). This lack of capacity can affect teacher's attitudes toward analyzing and using data to make instructional decisions. This lack of teacher belief in the effectiveness of data use can influence teachers' willingness to engage in data use practices (Datnow & Hubbard, 2015a). Therefore, getting teachers to engage in this PD may be a challenge. In an effort to encourage teachers to participant in this PD, I will discuss with district senior leadership the

possibility of a daily stipend for attendance and points toward recertification of teacher certification. The current state of education is a potential barrier. The COVID pandemic and social distancing guidelines may necessitate the need for this professional learning to be delivered virtually or postponed.

Project Evaluation Plan

The project evaluation is goal based. The goal of this project was to increase teacher capacity to effectively personalize pedagogical practices to meet students' individual needs based on formative data. Survey data will be collected at the conclusion of day three. The evaluation will rate the effectiveness of the PD. This post survey is included in (Appendix A). The rating scale ranges from 1 to 4. Each question asks the participants to rate the level of degree in which they agree with the statement. The ratings are as follows: one indicates that they strongly disagree, two indicates that they moderately disagree, three indicates that they agree, four indicates that they strongly agree. The purpose of this evaluation is to rate the effectiveness of the PD in increasing teacher capacity to effectively personalize pedagogical practices to meet students' individual needs based on formative data. This researcher-created survey addresses the need of this project evaluation to assess the attainment of the goals of this project.

Project Implications

Local Community

This project addresses teachers' inconsistent data use of reading benchmark assessment data at the local level. This project was designed to meet the needs of teachers at the local level through professional learning activities in data use practices and

effective instructional strategies. There is the potential for positive social change as teachers become more effective users of data. As teachers become more data literate, they are more likely to make instructional changes that positively influence both teaching and learning. This project could aid in increasing teachers' capacity to use data to provide targeted instruction to meet student deficits. Increasing teachers' data literacy would allow for more personalized instruction. This could lead to an increase in students' reading performance. Reading proficiency is directly related to students' academic success (Reynolds, 2015). This is specifically important at the elementary level. Research indicates that if students do not reach grade level proficiency by the end of third grade that it is unlikely that they ever will (O'Conner, 2016). Therefore, this project has the potential for positive social change at the local level and may have impact on students, teachers, administrators, parents, and community stakeholders.

Far Reaching

This PD could have positive social change implications that are far reaching. This project could be shared with other districts as a model for increasing teachers' data use practices. Through effective PD, teachers may become more adept at analyzing data to make instructional decisions to improve teaching and learning. Through public dissemination of this study through ProQuest Dissertations and Thesis Global database researchers may use this project as a resource for their own research.

Conclusion

The purpose of this basic qualitative study was to explore how third grade reading teachers are using data from district reading benchmark assessments to effectively

improve student reading performance. Based on the findings, the project that resulted from this study was 3-day PD for third grade reading teachers. In this section, I included a description of the project, the purpose, the goals, the learning outcomes, the target audience, the outline components, the timeline, the activities, the trainer notes, the module formats, the Power Point, the implementation plan, the evaluation plan, the hourly details of the training, the rationale, and the review of the literature. In Section 4, I discuss my reflections and conclusions about the strengths and limitations of this project, recommendations, scholarship, project development, leadership and change, reflection on importance of the work, implications, applications, and directions for future research.

Section 4: Reflections and Conclusions

Introduction

The purpose of this qualitative study was to explore how third grade reading teachers are using data from reading benchmark assessments to effectively improve student reading performance. The problem addressed in this study was teachers' inconsistent use of reading benchmark data to improve student reading performance. This lack of consistency created a gap in practice at the local level. This project study was guided by two RQs. The first RQ addressed how third grade teachers are using reading benchmark assessment data to improve student reading performance. The second RQ addressed specific instructional strategies that third grade teachers are using from reading benchmark assessment data to improve student reading performance. This basic qualitative design for this project study included 13 participants. Data were collected through open-ended semistructured interviews. Qualitative analyses were conducted through open coding and thematic analysis. Through the research, effective formative data use practices emerged. A 3-day PD was designed to provide teachers with effective data use practices and specific instructional strategies that are helping to increase student reading performance at the local level.

Project Strengths and Limitations

In Section 3 of this study, I presented the goals of the project based on the review of the literature and the findings of this study. I designed the PD to address the inconsistent use of reading benchmark data at the local level. Throughout my research, I found that formative data use has positive effects on student learning outcomes. Using

formative data to make instructional decisions increases student achievement (Curry et al., 2015; Ebbeler et al., 2016; Immen, 2016; Klute et al., 2017; Li, 2016; Van Den Berg et al., 2017). Research indicates that many teachers fail to use data to make instructional changes (Ebbeler et al., 2016; van Geel et al., 2017). This is often due to teachers' lack of capacity for deep analysis (Datnow & Hubbard 2015a; Farley-Ripple & Buttram, 2015; Reeves & Chiang, 2018; Reeves et al, 2016).

The strengths of this project directly relate to the research and the analysis of the findings. I created this project to give teachers learning opportunities that go beyond big picture data analysis. This PD provides teachers the opportunity to engage in deep data analysis. This is a strength of the project as deep analysis can turn data into information that can be used to make effective instructional changes. Deep data analysis can lead to clear understandings about both teaching and learning that can increase student outcomes (Bernhardt, 2016; Marsh & Farrell, 2015). Another strength of this project is the collaborative nature of the PD. Through the activities, teachers will engage in collaborative conversations about data. Collaboration is a key component of effective data use (Jones & Thessin, 2015; Keuning et al., 2017; van Gasse et al., 2017). Through collaborative data discussions, teachers learn and grow from each other and increase their capacity to be proficient users of data (Bernhardt, 2016; Farley-Ripple & Buttram, 2015).

An additional strength of the project is that teachers will be provided with instructional practices that are making a difference at the local level in increasing students' reading performance. Through the presentation of the content and the PD activities, teachers will become more familiar with research-based instructional practices.

The instructional practices that emerged from the data include test taking strategies, differentiated instruction, and guided reading. Additionally, a strength of the project is that it was designed so that it could be presented by other facilitators. This project also offers practical experience and application opportunities for teachers to apply their newly acquired data use skills to other types of formative assessments and to other content areas.

A limitation of this project design is time. The project I developed for the school district requires that participants dedicate 3 consecutive Saturdays to the PD. Therefore, timing may be a limitation of this project. Another consideration of a project limitation is resistance of the participants to engage in data use PD. As found in the research, teachers' capacity and beliefs about data use can impede their willingness to participate in data use practices (Datnow & Hubbard, 2015a; Reeves & Chiang, 2018)

Recommendations for Alternative Approaches

The problem as described in Section 1 involved teachers' inconsistent use of formative data from reading benchmark assessments. This gap in practice could have been addressed in other ways. One alternative approach could have been to address this problem through data culture. Instead of interviewing the third grade reading teachers whose class averages increased the most on reading benchmark assessments from fall of 2018 to the spring of 2019, I could have looked at the schools who made the most gains. This could have led to an exploration of data cultures in the more effective schools as a possible way to address this gap in practice at the local level. An additional approach could have been to interview the literacy coaches in each of the schools that had the most

increases to better understand their role in supporting third grade reading teachers as they collaborate based on reading benchmark data. Another approach to analyzing this problem could be to explore the perceptions of the content interventionists in this district who serve as facilitators for data debriefings at each elementary school.

Scholarship

As a scholar, student, and educator, my doctoral journey has taught me perseverance and dedication. Prior to beginning this journey, I had completed three Master of Education degrees. For two of those, I completed a thesis. For that action research, I focused on student reading motivation and leadership styles respectively. While both of those experiences introduced me to the research process, I soon realized that I had much to learn about the research process into order to complete this project study. The rigor of this doctoral journey the past few years has taught me that commitment and diligence are both difficult and rewarding.

Through this process, I have grown as a writer and now see myself as a researcher. I have developed a more scholarly voice in writing and verbal communication. This rigorous process has taught me the value of research and that there is power in research. Research allows for the collection of data and analyzation that can lead to problem solving (Merriam & Tisdell, 2015). I have come to appreciate the value of the research process. I began to look through the lens of a researcher more systematically, not only complying with the process but embracing it. Beginning with the problem, purpose, and alignment and moving through the development of the study, IRB

approval, collecting, analyzing, and reporting data are all essential components of the systematic research process.

Through this process, I have grown as a practitioner. All of my research has positively affected the way in which I view and use data. I am now more proficient in deep data analysis and apply those practices in my own data use. I am now more cognizant of how I use data from formative assessments to inform my own instructional practices. I have become more reflective of my own practice and more diligent in differentiating instruction to meet the needs of my students. This process has increased my effectiveness to meet the needs of my learners.

Project Development and Evaluation

As a result of this project, I was able to expand my thought process and experience in developing an effective PD. Prior to the creation of this project, I had only experienced planning and implementation of PD on a small scale. Previously, my experiences only included development of PD that lasted 90 minutes or less. As a researcher and project developer, I used what I have learned throughout this journey to create a project that would create valuable learning opportunities for data use. I was very intentional in planning PD based on best practices for PD, adult learning theory, and effective teaching models. As I developed this project, I was mindful of what I have learned about effective PD. I was thoughtful in making sure that the participants had ample time to practice what I wanted them to learn (see Bambrick-Santoyo & Lemov, 2018; Sims & Fletcher-Wood, 2020). I made sure to plan through the lens of andragogy and planned the PD with a gradual release model. I wanted teachers to be able to

collaborate and reflect on their own learning and instruction. When considering how to evaluate this project, I was reflective about the alignment of the goals of the project, the activities, and the postsurvey. I was cognizant of each of these components to be sure that the evaluation aligned with the PD outcomes and the activities of the PD.

Leadership and Change

I now feel more confident in my ability to have a positive impact on social change. I am now more competent in my capability of advocating for students, teachers, and parents. Through my Walden journey, I have grown as both a scholar and a practitioner. These combined attributes will help me as I pursue becoming an administrator. Before this journey, my presentation experiences were limited to what I knew about teaching and learning. Since beginning at Walden, I have begun to deliver PD on PLCs and data culture. I have a lens outside of my own classroom and now leading PD that has a larger scope. I now have a voice grounded in research and broadened experiences. Being able to contribute to the research has had a positive effective on my ability and confidence to be a leader in positive social change.

Reflection on Importance of the Work

This qualitative project study was guided by Mandinach et al.'s (2006) DDDM theory. Through the exploration of teachers' formative data use practices, I learned effective practices for data use at the local level. This project has afforded me the opportunity to explore effective practices of data use. Through this process, I learned the importance of deep data analysis and that without deep analysis of formative data, it is difficult to make effective changes in instructional practice. The research has indicated

that most teachers do not know how to use formative data in a way that leads to meaningful instructional changes (Ebbeler et al., 2016; van Geel et al., 2017). This deep analysis is necessary for continuous school improvement. Teachers must be able to analyze data in a manner that allows for personalized learning (Bambrick-Santoyo, 2010; Konstantopoulos et al., 2019; Koon & Petscher, 2016). Teachers must go beyond what the data says to why it says what it says and how does it get addressed. This is essential if teachers are going to have the information that they need to truly drive their instruction.

Implications, Applications, and Directions for Future Research

When teachers improve their instructional practices based on data there is the potential for positive change. This project study has the potential to impact teachers' data use practices which could increase students' reading proficiency. Social change may take place if teachers apply strategies in this PD in their data use to personalize student needs. This project study may be beneficial at the local level as deeper understanding of DDDM could allow teachers to more effectively target students' specific needs. Social change may take place if teachers apply strategies from this PD in their data use to personalize student needs. If teachers apply the strategies that they learned in this PD, this could impact the school and district's data culture in a positive way. Further, this study has the potential to have a positive effect beyond that of the local level as it provides insight into effective instructional strategies as a result of the DDDM process that could be transferred to other grade levels and content areas.

Beyond the social change implications of the study, there are empirical implications. Teachers may seek to improve their formative data use practices and not

have available resources to attend professional learning sessions. This study could serve as a resource for effective data use practices and effective instructional strategies based on data use. This study adds to the literature on effective DDDM practices when applied to formative reading benchmark data to increase teacher capacity and student performance. Further research to explore teachers' capacity to increase teacher data use practices could include looking at other grade levels as the focus of this study was on third grade. Research could be conducted in other content areas to get a broader understanding of effective data use practices. Future research on data use will add to the themes of this study.

Conclusion

Due to high accountability systems, there has been a focus on data use to increase student achievement (Marsh & Farrell, 2015). What it means to use data effectively has become a focus for school leaders. This has led to an emphasis on data collection. However, simply providing teachers with data does not mean that they will know how to analyze the data to modify their instructional practices. Many teachers lack the ability to use their data to improve both teaching and learning (Datnow & Hubbard, 2015a; Ebbeler et al., 2016; van Geel et al., 2017). Teachers need opportunities to grow in their efficacy of data use in order to provide students with needed personalized instruction. DDDM is a process that provides teachers with tools that can help teachers meet the ever changing needs of students and prepare them to be successful as 21st century learners.

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Appendix A: Project

Day 1

Materials

- Room large enough for 20-40 participants
- Computer
- Projector
- Sticky Chart paper or nonstick Chart paper and tape
- Sticky notes
- Markers, pens, pencils, and highlighters (for each table)
- Notebook paper

Print

- Video Sheet
- Data Culture and DDI Survey
- Day 1 Agenda
- Sign in Sheet
- Exit Ticket

To Do

- Set up table near the entrance way for participants to sign in and pick up today's agenda
- Make and Print sign in sheet with attendee's names
- Label chart paper for Data Culture activity

Day 1 Agenda

8:00-8:25 Welcome and Introductions

1. The facilitator will welcome the participants.
2. The facilitator and participants will introduce themselves. They will give their name, where they teach, and how long they have been teaching.

8:25-8:45 Purpose of the PD, the logistics, learning outcomes and today's agenda.

1. The facilitator will share the purpose of this PD- The purpose of this PD is to increase teacher capacity to effectively personalize pedagogical practices to meet students' individual needs based on formative data .
2. The facilitator will share that the training will take place over the next 3 Saturdays. The first 2 Saturdays will lead up to the benchmark assessment. The third Saturday will follow the District Reading Benchmark Assessment given that week. The sessions will begin at 8:00 am and end at 3:30. There will be a 15 minute break in the morning and a 15 minute break in the afternoon. Participants will be on their own for their one hour lunch.
   All 3 Saturdays will be consecutive. The third Saturday session will immediately follow the reading benchmark assessment given that week.
   Day 1 Laying the Groundwork- Assessment Data, DDDM, Data Culture, and Collaboration

Day 2 Data Literacy, Big Picture and Deep Data Analysis, DDI, and Instructional Strategies

Day 3 Engaging in DDDM, DDI, and creation of an Action Plan after analysis of your current reading benchmark data

3. The facilitator will share the PD learning outcomes. At the end of the Professional Development, teachers will have increased their capacity to effectively use data and been provided with specific instructional strategies that are being used to increase student performance in reading at the local level.
4. The facilitator will discuss the Session 1 agenda.

8:45-9:00 Co-creation of Norms (Posted on big chart paper)

1. Teachers will discuss with their group 5 norms that they think are appropriate for our time together during these PD days.
2. Then as a whole group discussion we will co-create a norm chart.

9:00-9:25 Ice Breaker Activity

1. The facilitator will explain the Headbands game.
2. In small groups the participants will play the game.

9:25-9:45 Data Discussion

1.The facilitator will ask the participants to write down the answer to two questions on a sticky note: What role does data play in your instruction? What time did you go to sleep last night?

2. After 5 minutes, will have the participants line up across the room starting with the earliest time and ending with the latest time.

3. The facilitator will then pair the participants up that are beside each other.

4. They will then discuss the question: What role does data play in your instruction?

5. Then participants will go back to their seats and share with their table mates what they said.

6. The facilitator will then ask for a few volunteers to share what they said.

9:45-10:00 Break

10:00-10:35 Summative and Formative Assessment

1. The facilitator will talk about the summative assessment and formative assessment using the information on the corresponding PP slides.

2. The facilitator will have the participants make a t-chart of examples of summative assessments and formative assessments that they use in their classroom and share these with their group.

3. Then the facilitator will have the participants turn and talk with their groups about the Paul Bambrick-Santoyo quote “Assessments are the starting point for instruction, not the end.” They will discuss if they agree with it and if so have they always thought that way and if not why and when did their perception of assessment change? A spokesperson from each group will share something about the discussion they had.

10:35-11:15 Benchmark Assessments

1. The facilitator will then ask the participants to consider if benchmark assessments are a summative or formative assessment while watching the Powtoons Benchmark Assessment video https://www.youtube.com/watch?v=EZZepX5TsZM (3:36)
2. Participants will be asked to write down their thoughts on a piece of paper.
3. Participants will be asked to share what they wrote down with their table mates.
4. The Facilitator will then share information about why Benchmarks fall in the middle but overall are formative data. (They are systematic, standardized etc…)
5. The facilitator will use the corresponding slides to talk about benchmark data.
6. The facilitator will use the corresponding slide as a visual of benchmark being used as a predictive tool in our district.
7. 4. The participants will work with their groups to make Venn Diagram on chart paper of summative and formative assessment and discuss the value for each.

11:15-12:00 Overview of DDDM (Video and sheet)

1. The facilitator will give an overview of DDDM
2. The facilitator will ask teachers to compete the video sheet while watching the Ted Talk https://www.youtube.com/watch?v=FLqc_9VxfCE (6:33)
3. Participants will then be instructed to get out of their seats and partner up with someone outside of their group to discuss the video.
4. The facilitator will then have the participants go back to their seats and discuss with their group members what they wrote on their sheets or something that they discussed with their partner about DDDM.
5. The facilitator will then ask for volunteers to share what they wrote on their sheets or something that they discussed about DDDM during this time.
6. The facilitator will dismiss the participants for a one-hour lunch.

12:00-1:00 Lunch

1:00-2:00 Data Culture

Before the session or during lunch the facilitator will have 5 pieces of chart paper hung around the room. Each one will have one of the following preconditions written at the top: using appropriate data, a shared vision, support by leadership, structures for collaboration, and strategies for acquiring new learning.

1. The facilitator will have the participants take the data culture assessment based on their school (This was adapted from Paul Bambrick-Santoyo)
2. The participants will keep their assessments and discuss from their assessment a positive and an area their school could improve.
3. The facilitator will use the slides to go over data culture.
4. The participants will move around the room in a Gallery Walk Structure and add something to each of the charts in the context of data culture-

Such as what is appropriate data or examples of appropriate data, an example of a shared (data) vision, what does support by leadership look like, structures already in place for collaboration or suggestions for collaboration, and strategies in place or suggestions for acquiring new learning

5. The facilitator will ask for 5 volunteers to pick a chart and discuss the preconditions of an effective Data Culture when called upon. The facilitator will ask if participants have any comments or questions after each chart.
6. The facilitator will have participants discuss in whole groups the factors that they think impede data use with their groups.
7. The facilitator will share the research on some factors that impede data use.

2:00-2:15 Break

2:15-3:00 Collaborative Inquiry/ PLCs

1. The facilitator will ask why collaboration in Data Use is so important and call on 2 or 3 participants to share their thoughts.
2. The facilitator will share some research on the corresponding slides related to collaboration, collaborative inquiry, and PLCs.
3. The facilitator will then have the participants independently read The Futility of PLC Lite article.
4. After reading this article, the participants will discuss with their groups whether their schools are engaging in true PLCs or PLC Lite.
5. The facilitator will then ask for volunteers to share their thoughts.

3:00-3:30 Wrap Up and evaluation

1. The facilitator will ask if there are any questions and answer questions accordingly.
2. The facilitator will discuss the next PD date and

Day 2

Materials:

- Room large enough for 20-40 participants
- Computer
- Projector
- Sticky Chart paper or nonstick Chart paper and tape
- Sticky notes
- Markers, pens, pencils, and highlighters (for each table)
- Notebook paper
- Matching cards for icebreaker activity

Print

- Day 2 Agenda
- Sign in Sheet
- Sample benchmark data
- Analysis and Action Plan Handout
- Differentiated Instruction Article

To Do

- Set up table near the entrance way for participants to sign in and pick up today's agenda
- Make and print sign in sheet with attendee's names
- On a piece of chart paper, write: What "stuck" with you? (today's exit ticket) and hang up in the room (hang in the room)
- On a piece of chart paper, write: Parking Lot (hang in the room)

Day 2 Agenda

8:00-8:20 Welcome, Review Norms from last Saturday, Agenda Day 2

8:20-8:40 Icebreaker Activity

1. The facilitator will have the participants answer the following 3 questions on a sticky note.
    - If your life were portrayed in a movie, who would play you?
    - If you could travel anywhere in the world, where would you go?
    - If you were not an educator, what would your career be?
2. The participants will then find their match and share their responses.

8:40-9:10 Data Literacy

1. The facilitator will ask the participants to write down what they think it means to be data literate?
2. The facilitator will show the definition of Data Literacy.
3. The facilitator will ask the participants to write down a paraphrased definition of Data Literacy with their group.
4. The participants will share their group definition of Data Literacy and why it is important for us to be data literate.
5. The participants will then co-create a definition of data literacy and add it to the chart.

6. The participants will then rate themselves. Have them hold onto this; We will come back to it later.

9:10-9:45 Data Analysis

1. The facilitator will have the participants read over and talk about the swimmer analogy
2. The facilitator will then talk about Big Picture- Data Analysis and Deep Data Analysis
3. The facilitator will talk about types of questions and pass out district benchmark stems and have the teachers talk about what they notice about the questions and what students need to be able to do answer the questions.
4. The facilitator will have the participants look over Scan by Student and see what they notice and ask why digging deeper is necessary.
5. Before going on break, count off the participants into groups by counting 1,2,3,4 etc… into groups of about 4 and designating where each group will sit. Have students move there before going on their break.

9:45-10:00 Break

10:00-11:00 Big Picture and Deeper Analysis

1. The facilitator and participants (using handout questions 1-4) will use Sample Benchmark data to come up with "Big Picture" analysis with their group and discuss.
2. Then as a whole group participant will share their Big Picture Analysis.
3. The facilitator will then pass out the sample student data and item data that corresponds with the data passed out.
   From what to WHY and how
4. Following the handout (questions 5-7), the teachers will begin digging deeper, looking for trends in data.
5. The facilitator will then have the participants stop and discuss what they noticed about the data when digging deeper.
6. After this discussion, the facilitator will pass out an old reading benchmark assessment and have teachers talk about what students need to be able to do to answer each question correctly.
7. The facilitator will ask for volunteers to share about a few of the questions and what students need to know to successfully answer the questions.

11:00-12:00 DDI

1. The facilitator will present give an overview of the DDI Cycle using correlating slides.
2. The facilitator will have the teachers collaborate in making instructional decisions based on the data they analyzed (handout questions 8-10).
3. Once they have completed this portion, they will begin making an action plan based on their instructional decisions (questions 11-12).
4. The participants will share their experience with this process before going to lunch.

12:00-1:00 Lunch

1:00-1:40 Differentiated Instruction

1. The facilitator will have the participants watch the short excerpt from Mr. Holland's Opus.
2. After watching the video, group discussion will be had about the following questions:
    - What made the difference?
    - How did Lou Russ finally learn to play the drum?
    - What changed Mr. Holland's attitude and actions?
3. The participants will read the article and share one thing that they learned from the article and share one way that they differentiate in their classroom with their groups.
4. The facilitator will ask for volunteers to share maybe something that they learned from the article or an idea for differentiated instruction that they learned from a peer.
5. The facilitator will go over some research on Differentiated Instruction.
6. The participants will discuss how differentiated instruction relates to data use and can increase student reading performance.

1:40-2:00 Modeling

1. The facilitator will go over the research about modeling and think aloud strategy.
2. The facilitator and participants will watch a modeling thinking video https://www.youtube.com/watch?v=EGvmSSCgwJE and discuss it.
3. The facilitator will ask for any volunteers who would like to share something they learned or comment about modeling.
4. The participants will discuss how modeling relates back to data use and can increase student reading performance.

2:00-2:15 Break

2:15-2:45 Guided Reading

1. The facilitator will give an overview of guided reading and the research utilizing corresponding slides.
2. The participants will talk with their groups about their structures for guided reading and resources they have available.
3. The participants will discuss how guided reading relates back to data use and can increase student reading performance.

2:45-3:00 Test Taking Strategies

1. The facilitator will give an overview of the research and some specific test taking strategies utilizing corresponding slides.
2. The participants will talk with their groups about how they teach test taking strategies.
3. The participants will discuss how teaching test taking strategies relates back to data use and can increase student reading performance.

3:00-3:30 Wrap up and evaluation

1. The facilitator will ask the participants to bring resources for the next Saturday session that they can use to for lesson planning next Saturday.

2. The facilitator will create a “parking lot” and ask that participants leave a comment using a sticky not if they need clarification about a specific topic of the PD.
3. The facilitator will ask the participants to write at least 1 thing on a sticky note that “stuck with them” from today’s PD and place it on the chart on the wall (labeled “What ‘stuck” with you).

Day 3

Materials

- Room large enough for 20-40 participants
- Computer
- Projector
- Sticky Chart paper or nonstick Chart paper and tape
- Sticky notes
- Markers, pens, pencils, and highlighters (for each table)
- Notebook paper
- Participants will bring current reading benchmark data and the benchmark test

Print

- Day 3 Agenda
- Sign in Sheet
- PD Evaluation Sheet
- Analysis and Action Plan

To Do

- Set up table near the entrance way for participants to sign in and pick up today's agenda
- Make and Print sign in sheet with attendee's names

Day 3 Agenda

8:00-8:20 Welcome

1. As the participants arrive, the facilitator will ask them to sit at a table of the grade level they currently teach. This is important as today's session will be very collaborative and will be most advantageous for them to collaborate with their current grade level.
2. The facilitator will welcome the participants, review Norms, discuss today's agenda, and show the comic strip as an activator.

8:20-8:35 Review

1. The facilitator will review based on the responses from the "Parking Lot" the previous Saturday. If time, (using previous slides) briefly review how DDDM leads to DDI, the DDI Cycle, and what it means to be data literate.

8:35-9:00 Big Picture Data Analysis

1. The facilitator will review Big Picture Analysis.
2. The facilitator will pass out handouts for completing their analysis.
3. The participants will use their current data from their Reading Benchmarks to engage in this Big Picture Analysis (numbers 1-4 on handout). These benchmarks will have been administered earlier this week.
4. The participants will discuss with their group their big picture data analysis.
5. The facilitator will call on a few of the participants whole group to share if they noticed any trends in the data when discussing their analysis with their group.

9:00-10:00

Deep Data Analysis

1. The facilitator will review Deep Analysis.
2. The participants will use their current data, the benchmark assessment, and their handout (questions 5-7) to engage in deep analysis.
3. The participants will be reminded about the importance of collaboration in this process and encouraged to collaborate with their grade level peers about the benchmark questions and expectations/rigor of the questions.
4. The facilitator will call on a few of the participants whole group to share if they noticed any trends in the data when discussing their deep analysis with their group.

10:00-10:15 Break

10:15-10:45 Instructional Decisions

1. The facilitator will briefly review instructional decisions as part of the DDI process.
2. The facilitator will instruct the participants to use the next part of their handout to complete the instructional decisions portion.
3. The participants will be reminded about the importance of collaboration in this process and encouraged to collaborate with their grade level peers about instructional decisions.
4. The participants will make instructional decisions based on their analysis of their data (handout questions 8-10)

10:45-12:15 Planning of 1st Focus Skill

1. The facilitator will briefly review planning as part of the DDI process.
2. The participants will engage in the planning process (handout questions 11-12) using their data.
3. The participants will be reminded about the importance of collaboration in this process and encouraged to collaborate with their grade level peers about their action plan.

12:15-1:15 Lunch

1:15-2:45 Planning of 2nd Focus Skill

1. The participants will engage in the planning process (handout questions 11-12) using their data.
2. The participants will be reminded about the importance of collaboration in this process and encouraged to collaborate with their grade level peers about their action plan.

2:45-3:00 Reflection: Data Literacy

1. Participants will be asked to compare their level of data literacy to the week before and share. This will just be a time of reflection and then volunteers can share if they would like to share.

3:00-3:30 Final Evaluation

1. The facilitator will pass out the PD evaluation for the participants to complete.
2. The facilitator will thank the participants for their attentiveness and engagement in the PD.

Agenda Day 1

Time	Description/ Activity
8:00-8:25	Introduction of facilitators and teachers
8:25-8:45	Welcome and Introductions
8:25-8:45	Purpose, logistics, learning outcomes and today's agenda
8:45-9:00	Co-creation of Norms (Posted on big chart paper)
9:25-9:45	Data Discussion
9:45-10:00	Break
10:00-10:35	Summative and Formative Assessment
10:35-11:15	Benchmark Assessments
11:15-12:00	Overview of DDDM (Video and sheet)
12:00-1:00	Lunch
1:00-2:00	Data Culture
2:00-2:15	Break
2:15-3:00	Collaborative Inquiry/ PLCs
3:00-3:30	Wrap up and Evaluation

Agenda Day 2

Time	**Description/ Activity**
8:00-8:20	Welcome, Review Norms from last Saturday, Agenda Day 2
8:20-8:40	Icebreaker Activity
8:40-9:10	Data Literacy
9:10-9:45	Data Analysis
9:45-10:00	Break
10:00-11:00	Big Picture and Deeper Analysis
11:00-12:00	DDI
12:00-1:00	Lunch
1:00-1:40	Differentiated Instruction
1:40-2:00	Modeling
2:30-2:45	Test taking Strategies
2:45-3:00	Modeling
2:00-2:15	Break
2:15-2:45	Guided Reading
2:45-3:00	Test Taking Strategies
3:00-3:30	Wrap up and Evaluation

Agenda Day 3

Time	Description/ Activity
8:00-8:20	Welcome, review Norms, Agenda, and Activator.
8:20-8:35	Review
8:35-9:00	Big Picture Data Analysis
9:00-10:00	Deep Data Analysis
10:00-10:15	Break
10:15-10:45	Instructional Decisions
10:45-12:15	Planning of 1st Focus Skill
12:15-1:15	Lunch
1:15-2:45	Planning of 2nd Focus Skill
2:45-3:00	Reflection: Data Literacy
3:00-3:30	Final Evaluation: Survey

IMPLEMENTATION RUBRIC: DATA CULTURE, DATA-DRIVEN INSTRUCTION & ASSESSMENT

Paul Bambrick-Santoyo (adapted)

The rubric is intended to be used to assess the present state of data-driven instruction and interim assessment in a school.
5= Exemplary implementation 4= Proficient implementation 3=Intermediate implementation 2 = Beginning implementation 1 = No implementation

DATA-DRIVEN CULTURE	
1. **Active Leadership Team:** facilitate teacher-leader meetings looking at student work (interim assessment analysis and weekly data) & monitor the follow-up	/5
2. **Introductory Professional Development**: introduce teachers and leaders to data-driven instruction—understand how assessments define rigor, how to analyze student work, and how to adapt instruction	/5
3. **Implementation Calendar:** begin school year with a detailed calendar that includes time for assessment creation/adaptation, interim assessment analysis, weekly data meetings, and re-teaching (flexible enough to accommodate district mandates/changes)	/5
4. **Ongoing Professional Development:** PD calendar is aligned with data-driven instructional plan: includes student work analysis, action planning and learning how to teach content	/5
5. **Build by Borrowing:** Identify and implement best practices from high-achieving teachers & schools: visit schools/classrooms, share & disseminate resources/strategies	/5
ASSESSMENTS	Reading
1. **Common Interim** Assessments 4-6 times/year	/5
2. **Transparent Starting Point:** teachers see the assessments at the beginning of each cycle; assessments define the roadmap for teaching	/5
3. **Aligned to state tests** and **college readiness**	/5
4. **Aligned to instructional sequence** of clearly defined grade level and content expectations	/5
5. **Re-Assess** previously taught standards	/5
ANALYSIS	
1. **Immediate** turnaround of assessment results (ideally 48hrs)	/5
2. **User-friendly, succinct data reports** include: item-level analysis, standards-level analysis & bottom line results	/5
3. **Teacher-owned**: teacher analyzes own student work supported by instructional leaders	
4. **Test and student work in hand:** start from the exemplar and identify the gaps	/5
5. **Deep:** moves beyond *what* students got wrong and answers *why*: procedural and conceptual misunderstandings	/5
	/5
ACTION	
1. **Re-teach:** use guided discourse or modeling strategies to reteach difficult standards	/5
2. **6-week action plans:** execute plans that include whole-class instruction, small groups, tutorials, and before/after-school supports	/5
3. **Ongoing assessment**: check for understanding every day: aggressive monitoring of independent work, questioning, and in-class assessments to ensure student progress between interim assessments	/5
4. **Follow-up/Accountability:** instructional leaders review lesson and unit plans and give observation feedback driven by the action plan and student learning needs	/5
5. **Engaged Students** know the end goal, how they did, and what actions to improve	/5

TOTAL: /100

Exit Ticket Day 1:

3

Things I learned

1.

2.

3.

2

Things I found interesting

1.

2.

1 Question I still Have

1.

Reading Benchmark Assessment and Action Plan: Steps for Analyzing Data

Whole Class:

1. What are the areas of strength?

2. What are the areas of weakness?

3. Which standards were assessed?

4. Within those standards, which questions did students have the hardest time with?

Deep Analysis

5. Look at how the students did from highest to lowest. What are the biggest surprises?
6. Read the questions on the test.

    Analysis Stems-
    - So… what is the data telling me?
    - Why did the students get question ____ wrong?
    - What did the students need to be able to do to get that question right?
    - Bombed questions-Did all students choose the same wrong answer? Who or why not?
    - What standards are being assessed?

7. Identify the skills or concepts within those standards.

Instructional Plan

8. Choose two skills or concepts on which to focus.

9. What is your hypothesis about the error in their thinking? (Look at wrong answer choices.

10. What might students have been thinking when choosing this wrong answer choice?)

Action Plan

11. Choose two dates for re-teaching the skills or concepts.
12. Design two lessons, each focusing on teaching one of the skills or concepts.

Name_____

Video Notes

Video Topic: _____

As you watch the video, write down your ideas and impressions and some facts or ideas you heard. Use the back if necessary.

Things I Learned:

Questions I Have:

Important Vocabulary and Other Thoughts:

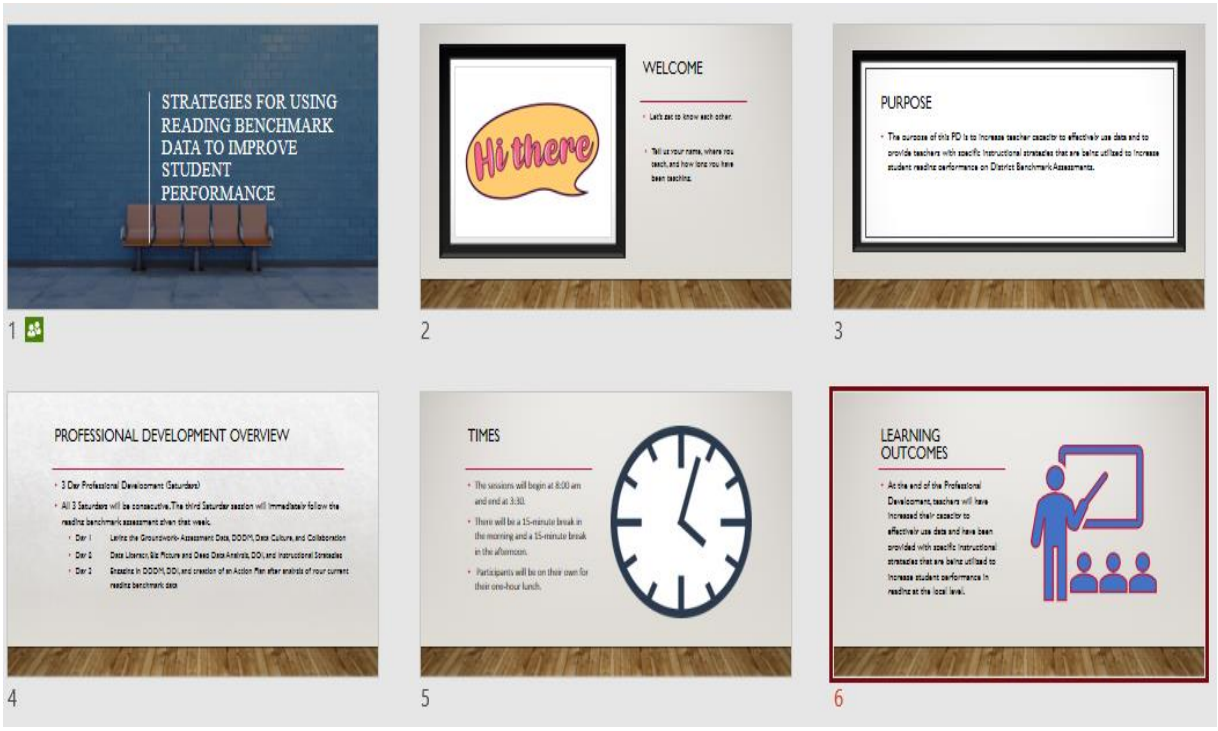
Opinions I Have:

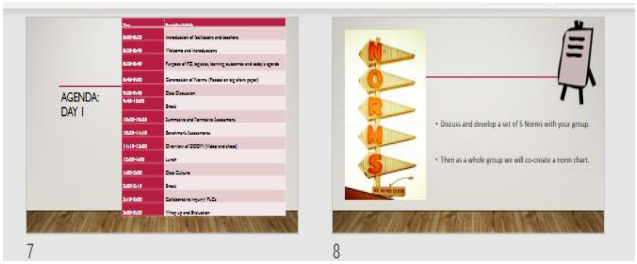
Strategies for Using Reading Benchmark Data to Improve Student Performance

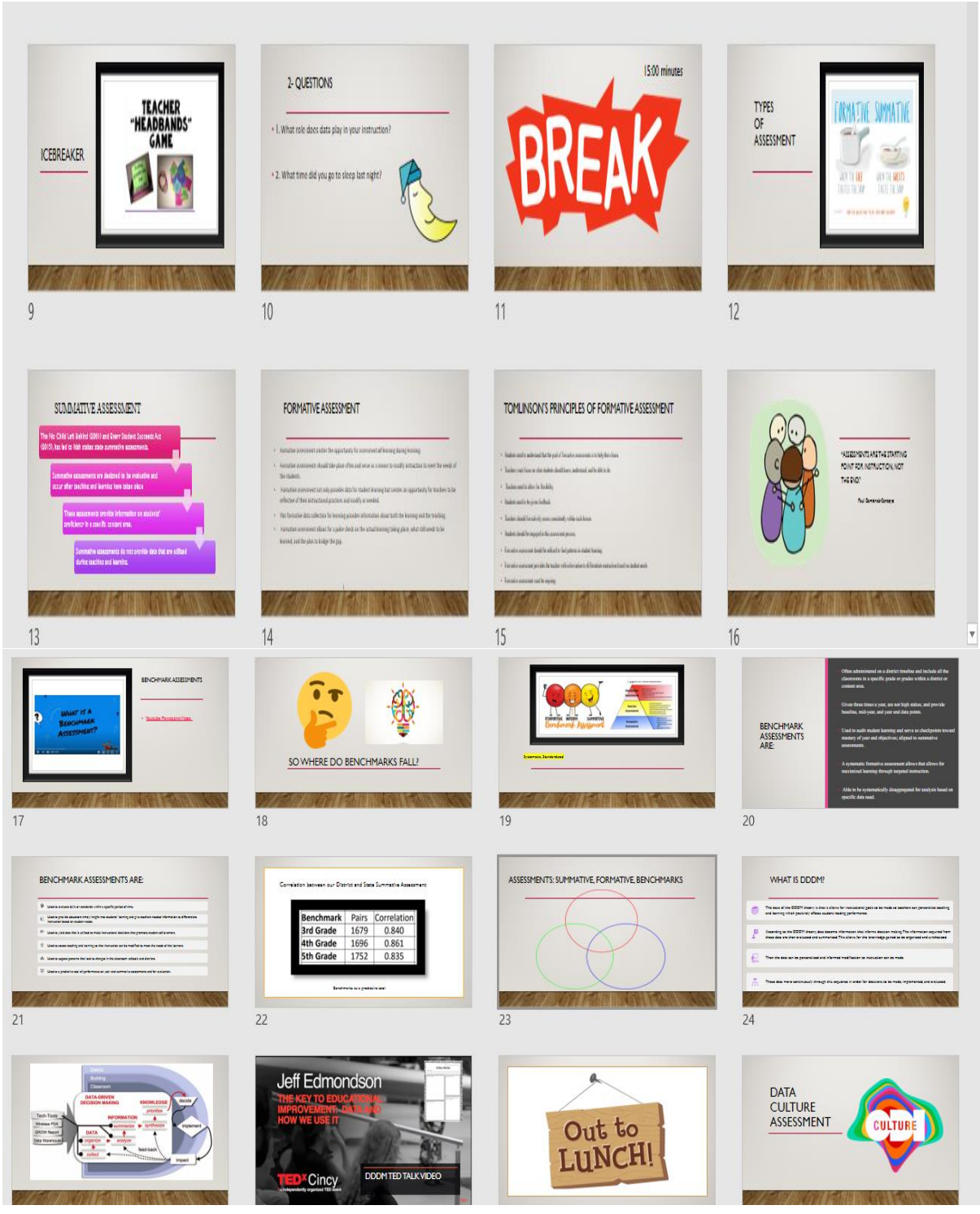
Post-Survey

Directions: When completing this survey, please circle just one of the choices for each corresponding question. Thank you for your time and attentiveness to this survey,

Survey Question	1	2	3	4
1.After participating in this PD, I feel more competent at analyzing my reading benchmark data, to plan my instruction.	Disagree Strongly	Disagree	Agree	Agree Strongly
2.After participating in this PD, I feel more confident in my ability to "dig deep" into my reading benchmark data.	Disagree Strongly	Disagree	Agree	Agree Strongly
3.After participating in this PD, I feel more competent at utilizing my reading benchmark data, to plan my instruction.	Disagree Strongly	Disagree	Agree	Agree Strongly
4.After participating in this PD, I am more likely to use benchmark data, to make changes to my instruction.	Disagree Strongly	Disagree	Agree	Agree Strongly
5. After participating in this PD I have increased my knowledge of research based instructional strategies.	Disagree Strongly	Disagree	Agree	Agree Strongly
6. This PD has increased my capacity to use data effectively.	Disagree Strongly	Disagree	Agree	Agree Strongly


STRATEGIES FOR USING READING BENCHMARK DATA TO IMPROVE STUDENT PERFORMANCE
1
WELCOME
Hi there
2
PURPOSE
3
PROFESSIONAL DEVELOPMENT OVERVIEW
4
TIMES
5
LEARNING OUTCOMES
6


AGENDA: DAY 1
7
NORMS
8


ICEBREAKER
TEACHER "HEADBANDS" GAME
9
2- QUESTIONS
• 1. What role does data play in your instruction?
• 2. What time did you go to sleep last night?
10
15:00 minutes
BREAK
11
TYPES OF ASSESSMENT
FORMATIVE SUMMATIVE
12
SUMMATIVE ASSESSMENT
The No Child Left Behind (2001) and Every Student Succeeds Act (2015), but let's talk more data summative assessments.
Summative assessments are designed to be evaluative and occur after teaching and learning have taken place.
These assessments provide information on students' proficiency in a specific content area.
Summative assessments do not provide data that are utilized during teaching and learning.
13
FORMATIVE ASSESSMENT
14
TOMLINSON'S PRINCIPLES OF FORMATIVE ASSESSMENT
15
"ASSESSMENTS ARE THE STARTING POINT FOR INSTRUCTION, NOT THE END"
16
BENCHMARK ASSESSMENTS
WHAT IS A BENCHMARK ASSESSMENT?
17
SO WHERE DO BENCHMARKS FALL?
18
19
BENCHMARK ASSESSMENTS ARE:
20
BENCHMARK ASSESSMENTS ARE:
21
Correlation between our District and State Summative Assessment
Benchmark | Pairs | Correlation
3rd Grade | 1679 | 0.840
4th Grade | 1696 | 0.861
5th Grade | 1752 | 0.835
22
ASSESSMENTS: SUMMATIVE, FORMATIVE, BENCHMARKS
23
WHAT IS DDDM?
24
DATA-DRIVEN DECISION MAKING
Jeff Edmondson
THE KEY TO EDUCATIONAL IMPROVEMENT: DATA AND HOW WE USE IT
TEDx Cincy
DDDM TED TALK VIDEO
Out to LUNCH!
DATA CULTURE ASSESSMENT
CULTURE

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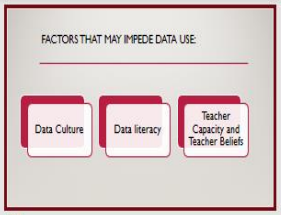

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32

33

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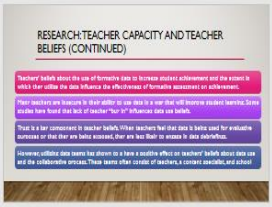

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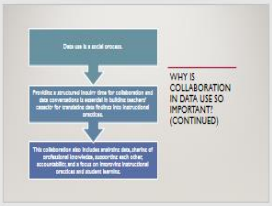

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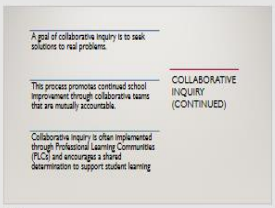

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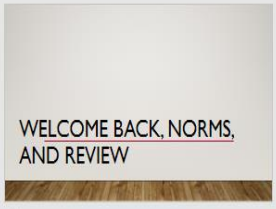
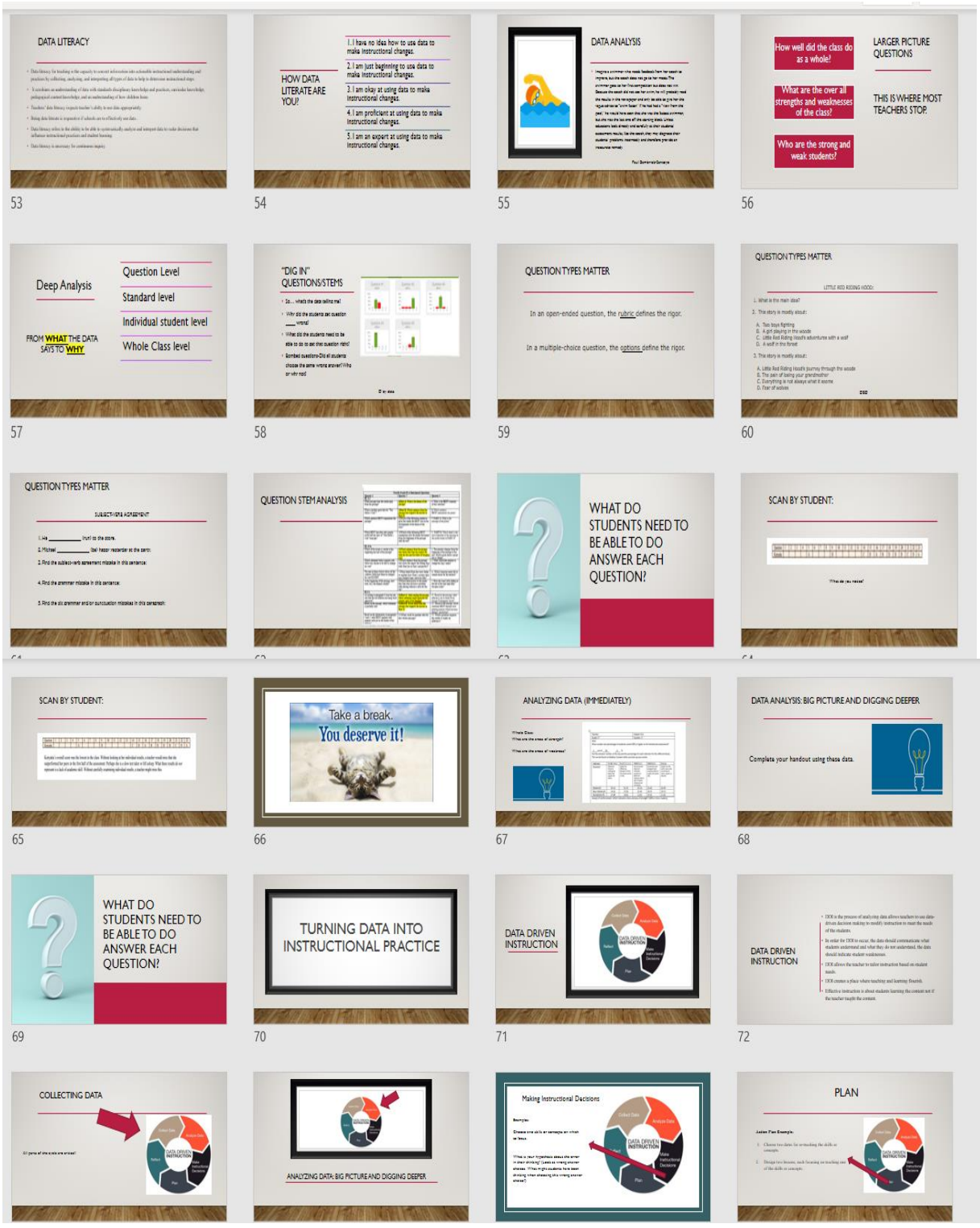
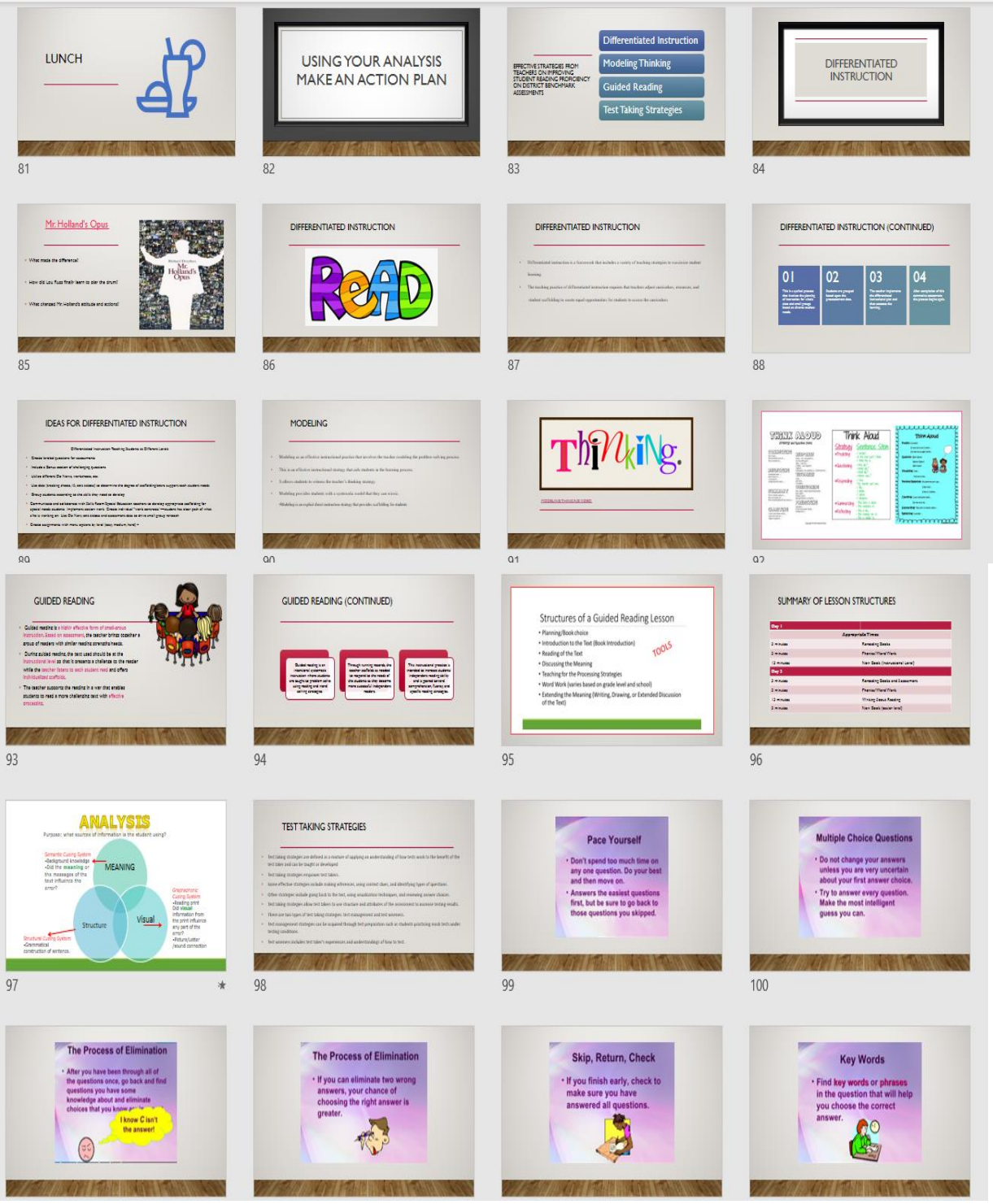



DATA LITERACY
53
HOW DATA LITERATE ARE YOU?
1. I have no idea how to use data to make instructional changes.
2. I am just beginning to use data to make instructional changes.
3. I am okay at using data to make instructional changes.
4. I am proficient at using data to make instructional changes.
5. I am an expert at using data to make instructional changes.
54
DATA ANALYSIS
55
How well did the class do as a whole!
What are the over all strengths and weaknesses of the class?
Who are the strong and weak students?
LARGER PICTURE QUESTIONS
THIS IS WHERE MOST TEACHERS STOP.
56
Deep Analysis
FROM WHAT THE DATA SAYS TO WHY
Question Level
Standard level
Individual student level
Whole Class level
57
"DIG IN" QUESTIONS/STEMS
58
QUESTION TYPES MATTER
In an open-ended question, the rubric defines the rigor.
In a multiple-choice question, the options define the rigor.
59
QUESTION TYPES MATTER
60
QUESTION TYPES MATTER
64
QUESTION STEM ANALYSIS
62
WHAT DO STUDENTS NEED TO BE ABLE TO DO ANSWER EACH QUESTION?
63
SCAN BY STUDENT:
64
SCAN BY STUDENT:
65
Take a break.
You deserve it!
66
ANALYZING DATA (IMMEDIATELY)
67
DATA ANALYSIS: BIG PICTURE AND DIGGING DEEPER
Complete your handout using these data.
68
WHAT DO STUDENTS NEED TO BE ABLE TO DO ANSWER EACH QUESTION?
69
TURNING DATA INTO INSTRUCTIONAL PRACTICE
70
DATA DRIVEN INSTRUCTION
71
DATA DRIVEN INSTRUCTION
72
COLLECTING DATA
ANALYZING DATA: BIG PICTURE AND DIGGING DEEPER
Making Instructional Decisions
PLAN


LUNCH
81
USING YOUR ANALYSIS MAKE AN ACTION PLAN
82
EFFECTIVE STRATEGIES FROM TEACHERS ON IMPROVING STUDENT READING PROFICIENCY ON DISTRICT BENCHMARK ASSESSMENTS
Differentiated Instruction
Modeling Thinking
Guided Reading
Test Taking Strategies
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DIFFERENTIATED INSTRUCTION
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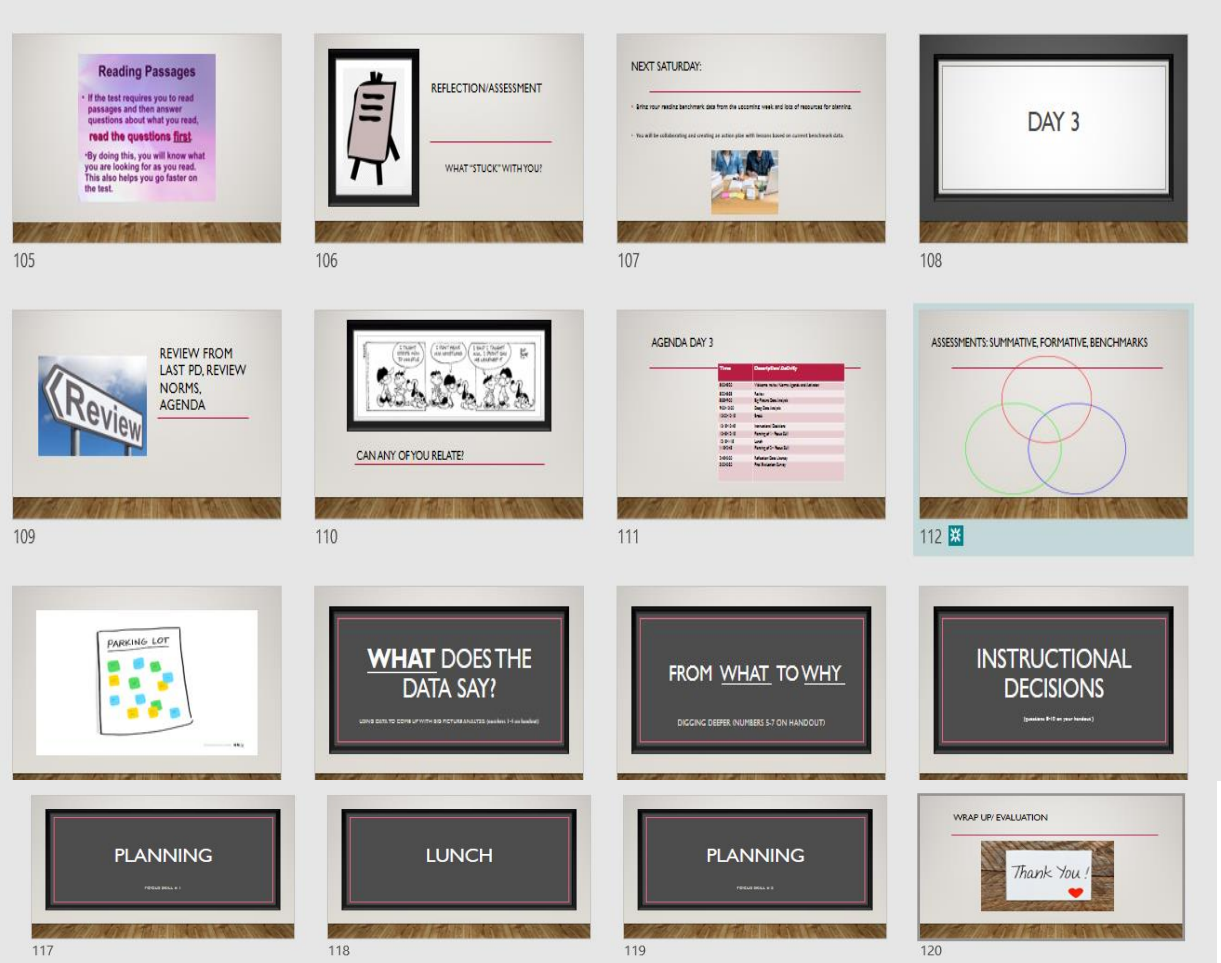
Mr. Holland's Opus
85
DIFFERENTIATED INSTRUCTION
READ
86
DIFFERENTIATED INSTRUCTION
87
DIFFERENTIATED INSTRUCTION (CONTINUED)
01
02
03
04
88
IDEAS FOR DIFFERENTIATED INSTRUCTION
90
MODELING
89
THINKING
91
THINK ALOUD
Think Aloud
92
GUIDED READING
93
GUIDED READING (CONTINUED)
94
Structures of a Guided Reading Lesson
TOOLS
95
SUMMARY OF LESSON STRUCTURES
96
ANALYSIS
MEANING
Structure
Visual
97
TEST TAKING STRATEGIES
98
Pace Yourself
99
Multiple Choice Questions
100
The Process of Elimination
I know C isn't the answer!
The Process of Elimination
Skip, Return, Check
Key Words


Reading Passages
If the test requires you to read passages and then answer questions about what you read,
read the questions first.
By doing this, you will know what you are looking for as you read. This also helps you go faster on the test.
105
REFLECTION/ASSESSMENT
WHAT "STUCK" WITH YOU?
106
NEXT SATURDAY:
107
DAY 3
108
Review
REVIEW FROM LAST PD, REVIEW NORMS, AGENDA
109
CAN ANY OF YOU RELATE?
110
AGENDA DAY 3
111
ASSESSMENTS: SUMMATIVE, FORMATIVE, BENCHMARKS
112
PARKING LOT
WHAT DOES THE DATA SAY?
FROM WHAT TO WHY
DIGGING DEEPER (NUMBERS 5-7 ON HANDOUT)
INSTRUCTIONAL DECISIONS
PLANNING
117
LUNCH
118
PLANNING
119
WRAP UP/ EVALUATION
Thank You!
120

Project References

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Appendix B: Research Request Application

[redacted]

Application Request for Research Project

NAME: Dana "Beth" Bartlett	DATE OF PROPOSAL: October 14, 2019
School/Location: [redacted]	Principal/Supervisor [redacted]
Email address: [redacted]	University Professor: Dr. Michael Vinella
SCHOOL(S), CLASSROOM or LOCATION IN WHICH PROJECT IS BEING CONDUCTED: District Data	
APPROVAL RECEIVED FROM PRINCIPAL OR IMMEDIATE SUPERVISOR ☑ YES ☐ NO	RESEARCH START DATE: ESTIMATED COMPLETION DATE:

Research Project Description

1. Title of Research Project:

Qualitative Study of Teachers' use of Reading Benchmark Assessment Data

2. Describe the primary purpose of the research as well as the measurable objectives of the project.
Examples: "The aim of this study is to _____ (Determine/Measure/Gather information on/ Investigate the consequences/Test the theory/Analyze the impact/Develop deeper understanding of _____.

The purpose of this study is to explore how third grade reading teachers have utilized data gained from district created benchmark assessments and specific instructional strategies to personalize learning based on these data to increase student achievement.

3. Provide a brief description of the research and how it will address improvement of educational policy, programs or practices:
District leadership may find this research helpful and utilize these findings to make decisions about the effectiveness of teachers ' use of these benchmark assessments or the data gathered from the assessments to impact student reading proficiencies. The findings of this study could positively affect social change in the area of third grade reading proficiency or teachers ' ability to use the data to personalize learning. This study could possibly yield results that have positive social change implications for achievement in other grade levels and content areas.

4. How does the Research Project align with the strategic mission and vision of the [redacted] ecific school or classroom? If a section is not applicable to your Research Project, indicate N/A.
District/School strategic plan and educational goals to improve student achievement:

☑ Research-based strategies related to improving districts, schools, curriculum, instruction, assessment, and improving learning for all students:

☑ Improvement of learning for all students in the targeted student population(s):

☑ Standards-based instruction and assessment, [redacted]

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- [x] Professional development and support for instructional or support staff:
- [ ] Supervision and evaluation of instructional staff (and non-instructional staff, if applicable): n/a
- [x] Diverse learning needs of students:
- [x] Use of technologies designed to enhance teaching and learning,
- [x] Creating a safe, nurturing and orderly school environment that is conducive to learning for all students
- [ ] Engaging Parents, Community or Business partners

Data Requests: Please describe in detail any data or information that you are requesting from the District. This would include requests to administer surveys, conduct observations etc. Please be as specific as possible.

Qualitative analysis of semi-structured structure interviews will be conducted. Teacher data reflection tools completed after each administration of the three benchmark assessments will aid in facilitating open-ended-semi-structured interviews. These open-ended analysis of will be conducted on 10 of the approximate 80 third grade teachers in this district. The ten third grade teachers whose students made the most gains from fall 2018 to spring 2019 on the reading benchmark assessments will be the participants in this study. The same 10 teachers will participate in both the semi-structured interviews and submission of their three data reflection tools that note student's weaknesses, strengths, and teacher's next steps for the 2018- 2019 school year. This qualitative analysis will be conducted through open-coding and thematic analysis.

Other Relevant Comments:

[redacted]

My signature below certifies that:

- I have received a copy of the *Guidelines and Procedures for Conducting Researc* [redacted] at I will comply fully with the policies and procedures outlined as part of my research
- I have reviewed all relevant policies and procedures as outlined in that document related to responsible conduct in research including those related to ethical conduct and confidentiality
- I understand that while working as a researcher under the supervision of [redacted] employee, I may have access to records and files that contain confidential information and that it is the employer's obligation to protect the rights of these files and/or individuals and that
- I will follow the operating practices and procedures required while handling these records and will not inappropriately access or disclose this information.
- I acknowledge that if I misrepresent or omit any information as requested on this application I have jeopardized my continued association with [redacted] e for forfeiture of consideration

Researcher Name: Dana "Beth" Bartlett
Print or Type name

Researcher Signature: Dana "Beth" Bartlett Date: 10/14/19

Reviewed by:

Signature: _____ Date: 10/14/19
Principal (if applicable)

Signature: _____ Date: 11/8/2019
Director, Office of Accountability & Assessment or Chief Officer of Administration

Disposition: APPROVED DENIED

Rev 9/2016

Appendix C: Email Correspondence

Greetings,

My name is Dana “Beth” Bartlett, and I am a fellow educator in our district. I am conducting a qualitative project study through Walden University in order to earn my EdD in Curriculum, Instruction, and Assessment. I am conducting research in regard to third grade reading benchmark assessments. The participants for this study are the teachers who taught third grade in 2018-2019. Specifically, I am collecting data from the teachers whose class averages increased the most from October of 2018 to March of 2019 on the reading benchmark assessments. I am contacting you because your name was given to me by our Director of Assessment and Instruction as your class average increases were in the top 15% from the fall to the spring. Sharing how you use benchmark data to inform your reading instruction and specific strategies used as a result of these data would be greatly appreciated and make this research possible. Please read the attached consent form. If you are willing to participate in this research, please sign and email the form back to me or send your signed consent form through the currier at your earliest convenience. Please do not hesitate to contact me with any questions or concerns.

Thank you so much for your consideration,

Dana “Beth” Bartlett

Appendix D: Interview Questions

Name:_____ Position: _____

Years as a Classroom Teacher: _____ Highest Degree Earned:_____

Date:_____ Time Started:_____ Time Ended:_____ Total Time:_____

Place: _____

1. What is your process for analyzing reading benchmark data?
2. What do you find helpful in this analysis process?
3. What are your next steps, once you have analyzed reading benchmark data?
4. Based on your analysis of reading benchmark data and next steps based on these data, what specific instructional strategies did you use to increase student performance on the next reading benchmark?
5. Based on your analysis of reading benchmark data and next steps based on these data, what specific instructional strategies did you find to be the most effective in increasing student reading performance on the next benchmark?

Appendix E: District Data Reflection Tool

Data Reflection Tool

Each teacher will complete and upload the *Data Reflection Tool* to the shared folder in OneDrive where school schedules are uploaded (within a week of the opening of the benchmark window). Teachers will receive step-by-step pictorial directions for uploading this document.

<table>
<tr><td colspan="2">Teacher:</td><td colspan="2">Subject:</td></tr>
<tr><td>Grade Level:</td><td colspan="2">Quarter:</td><td>Date:</td></tr>
<tr><td colspan="4">School Name:</td></tr>
<tr><td colspan="4">1.) Which indicator/standard does your data indicate as being an area of strength? (Kindergarten and grade 1 teachers should include text level instead of indicator/standard in ELA only.)</td></tr>
<tr><td colspan="2">2.) Which indicator/standard does your data indicate as being an area of weakness? (Kindergarten and grade 1 teachers should include text level instead of indicator/standard in ELA only.)</td><td colspan="2">Possible causes for areas of weakness. (Ex. The way it was taught, misunderstanding of the standard, lack of fundamental information)</td></tr>
<tr><td colspan="4">3.) Explain your next steps. (How will you remediate, accelerate, or spiral?)</td></tr>
<tr><td colspan="4">4.) How will you progress monitor the impact of your next steps?</td></tr>
<tr><td colspan="4">5. Based on your data, what goal have you created that will result in improved student achievement?</td></tr>
</table>