EXAMINING THE DECISIONS AND PRACTICES OF EXEMPLARY FOURTH- AND FIFTH-GRADE TEACHERS WHEN DIFFERENTIATING READING INSTRUCTION: A GROUNDED THEORY APPROACH

By

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To my husband, Jim – Thank you for your endless love, support, dedication, patience and encouragement so my dream could become a reality. This is only because of you.

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And finally, to God, my Savior, and source of strength, truth, guidance and peace.

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The purpose of this study was to understand how four exemplary fourth- and
fifth-grade elementary teachers differentiate reading instruction. Using a constructivist
approach to grounded theory, the researcher conducted individual interviews and
classroom observations to identify the factors contributing to teachers' decisions to tailor
reading instruction and the nature of their differentiated reading instruction.

The findings, presented as a manuscript submitted to a peer-reviewed reading
education research journal, were represented in a grounded theory. The theory reveals
that the teachers considered three factors when making decisions about differentiation:
teaching philosophy, teaching context and analysis of data. These factors, in turn,
impacted the nature of differentiated instruction in regards to a) the actual reading
content students were taught, b) the instructional practices and materials teachers used,
and c) the products students engaged in to demonstrate their understanding of the
book, skill, strategy or concept taught. Content, process and product decisions were
student-centered and determined by ongoing data collection and analysis of each

child's reading level, background knowledge, reading skill knowledge, learning preferences, academic identity and interests.

As a step toward linking the grounded theory to practice, the implications of this study were used to write a practitioner article about data-based decision-making for differentiating reading instruction. This paper was submitted to a peer-reviewed practitioner journal in an effort to help teachers use data more wisely to improve the differentiation of their reading instruction.

CHAPTER 1
INTRODUCTION

Statement of the Problem

Differentiating reading instruction based upon students' needs, interests and strengths is a critical part of improving students' reading competence (Allington & McGill-Franzen, 2009; Connor, Morrison, & Katch, 2004; Connor, Morrison, Petrella, 2004; Connor et al., 2009; Connor et al., 2011; Duke, Pearson, Strachan & Billman, 2011; Kucan & Palincsar, 2011; Reis, McCoach, Little, Muller, & Kaniskan, 2011). Effective differentiation is accomplished by using assessment data to tailor instruction so all students are provided access to the same reading curriculum (Watts-Taffe et al., 2012). However, for differentiated instruction to have the greatest impact on students' reading outcomes, high-achieving, average, and low-achieving readers need different amounts and kinds of instruction (Connor, Morrison & Katch, 2004; Connor, Morrison, & Petrella, 2004; Connor et al., 2009; 2011; Juel & Minden-Cupp, 2000).

In 2004, Connor, Morrison and Petrella observed third-grade teachers' reading comprehension instruction based on four dimensions: a) explicit versus implicit, b) teacher managed versus child-managed, c) word level versus higher order, and d) change over time. The researchers found that students who tested average and below-average in language and reading comprehension skills improved significantly when instruction was more explicit and managed by the teacher. In this study, explicit comprehension activities included research-based activities reported by the National Reading Panel (National Institute of Child Health and Human Development, 2000) to promote the construction of meaning, such as vocabulary instruction, the explicit teaching of strategies (i.e., identifying text structure, predicting, and questioning) and

cooperative learning to promote strategy use. For example, explicitly teaching the

conventions of text (e.g., grammar) and vocabulary (e.g., morphological awareness)

and managing highly interactive discussions significantly increased comprehension

achievement in typically developing and lower-achieving students. Additional explicit

instructional strategies – explanation and modeling through think alouds, genuine and

thoughtful feedback, and opportunities to practice a comprehension skill or strategy with

someone who is more adept at using the skill or strategy—have been found to be

effective with average and below average readers (Baumann, 1984; Baumann, Seifert-

Kessell, & Jones, 1992; Duffy et al., 1986; Englert, 2009; Gersten, Fuchs, Williams, &

Baker, 2001).

In contrast, students testing above average achieved higher comprehension

growth when they had responsibility for managing their learning in activities focused

directly on meaning construction (e.g., more opportunities to learn in cooperative groups

or with a peer). However, child-managed, meaning-based instruction had a negative

effect on typical and lower-achieving readers' comprehension growth, which further

demonstrates the importance of strategically matching reading instruction to fit the

reading profile of each student. Similar results were found when exploring the child and

instruction interactions with first graders receiving decoding instruction (Connor,

Morrison & Katch, 2004). Students who scored average and below-average on

decoding and vocabulary skills in the fall significantly improved their word recognition

skills in the spring when decoding instruction was initially teacher-managed and explicit

and gradually shifted more responsibility to students to manage their own learning as

the year progressed.

Several years later, Connor et al., (2011) further substantiated past findings regarding differentiated reading instruction. The researchers randomly placed third-grade teachers in one of two interventions: 1) meaning-based, differentiated reading instruction (i.e., word reading, reading comprehension, and vocabulary) or 2) undifferentiated vocabulary instruction. They discovered that the meaning-based, differentiated instruction, determined by student data, content focus, type and amount of instruction and grouping arrangements, was more effective than the undifferentiated, vocabulary instruction for improving students' reading comprehension achievement. Based upon these studies, the researchers suggest the following:

> We cannot assume that a one-size-fits-all whole-class instructional approach promoted in many core literacy curricula is going to be generally effective for many third graders, especially for students who begin third grade with very strong or very weak skills. As we define high-quality instruction, we have to ask for which student with which profile of skills and consider that these profiles are changing over time. What is effective and high-quality instruction for one student may be ineffective and, hence, poor quality for a student with a different profile of skills. (Connor et al., 2011, p. 207)

Connor and colleagues (under review) also suggest that effective differentiated instruction extends beyond the amount and type of instruction provided (i.e., code-focused/meaning-focused, and teacher-managed/child-managed) but also encompasses classroom learning environment elements: classroom organization, support for student language development and teacher warmth, response to student behavior and discipline. Third grade students' vocabulary and comprehension gains were greatest when teachers had highly organized rooms with established routines and expectations, provided oral language support, and demonstrated warm interactions with and emotional support for student learning coupled with particular types and substantial amounts of instruction specific to their reading profile.

Taken together, this evidence from studies of differentiated reading instruction points to the fact that in order to be effective, instruction should be strategically planned by considering classroom learning environment elements and each child's language knowledge, reading skill level, and interests to determine the appropriate type and quantity of instruction for his/her literacy needs. When literacy instruction from year to year strategically executes these differentiated instructional components, there is an accumulating effect on student reading outcomes (Connor et al., in press).

Yet, despite the scholarly work illustrating how to maximize student learning through differentiated instruction, previous classroom reading observation studies in grades K-6 have only explored the quantity and quality of reading instruction during the Language Arts block where frequency counts and descriptions of the reading practices as well as mode of delivery were documented (e.g., Concannon-Gibney, 2009; Donaldson, 2011; Ness, 2011; Pressley, Wharton-McDonald, Mistretta, & Echevarria, 1998; Pressley et al., 2001; Solic, 2011; Taylor, Pearson, Clark, & Walpole, 1999; Taylor, Pearson, Clark, & Walpole, 2000; Taylor, Peterson, Pearson, & Rodriquez, 2002; Wharton-McDonald, Pressley, & Hampston, 1998). For example, Donaldson (2011) analyzed observation data on reading comprehension instruction for K-3 classrooms in 22 Reading First schools over the course of three consecutive school years, and discovered that comprehension instruction was delivered in small- and whole-group arrangements, yet explicit instruction (i.e., explanation, modeling, and when or why to use the skill or strategy) and guided practice occurred less frequently (15% and 14%, respectively). In the studies specifically exploring exemplary schools and teachers in improving students' reading achievement (Pressley et al., 1998; 2001;

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Taylor et al., 1999; 2000; Wharton-McDonald et al., 1998), some commonly observed

practices included: a) use of various grouping strategies, b) coaching and/or scaffolding

students' learning, c) balanced instruction consisting of explicit instruction and authentic

reading opportunities, and d) class discussions encouraging higher-level responses to

text. According to Taylor et al. (1999), it was the time spent in small-group reading

instruction that distinguished the more effective schools from the least effective schools.

The effectiveness of small-group instruction on student reading outcomes was also

corroborated in Connor's work (under review).

Thus, existing research supports the critical importance of differentiating reading

instruction (Juel & Midden-Cupp, 2000; Tomlinson, 1999, 2000a; 2000b; Duke et al.,

2011), and observational studies suggest there is evidence of effective teachers

tailoring instruction for their diverse learners to promote reading achievement (Pressley

et al., 1998; 2001; Taylor et al., 1999; 2000; Wharton-McDonald et al., 1998). However,

not enough is known about how effective teachers make decisions to differentiate

instruction within the same reading curriculum for their students' diverse needs. That is,

what information do exemplary teachers use to guide their decision-making when

tailoring instruction for low-, average-, and high-achieving readers? Even less is known

about this phenomenon in upper elementary school classrooms (Connor, Morrison, &

Katch, 2004; Connor, Morrison, & Petrella, 2004; Connor et al., 2009; 2011). Pressley

(2006) states that by researching excellent literacy teachers we can "discover how to

transform many more classrooms and schools into effective literacy education

environments" (p. 7). Therefore, additional observation studies of outstanding teachers

are needed to provide direction for differentiated reading instruction in upper elementary classrooms.

Purpose of the Study and Research Questions

The purpose of this grounded theory study was to gain insight into how exemplary fourth- and fifth-grade teachers differentiate reading instruction for their students. The study complemented Connor's important work on instructional differentiation in primary grades. While this study did not rely on Connor's (2009) model (i.e., Individualizing Student Instruction [ISI]) that uses Assessment to Instruction (A2i) software and complex algorithms to compute the type and amount of differentiated instruction needed for each child in the classroom, this study did use the model's components in addition to the classroom learning environment elements (under review) as a framework for observing exemplary teachers' differentiated reading practices. Based on Taylor's studies (1999; 2000; 2002), effective teachers of reading strategically navigate the complexities of the classroom setting by incorporating practices similar to the model to meet the varying needs of their students (e.g., flexible grouping strategies, amount of scaffolding or teacher management, etc.). However, less is known about how exemplary teachers make instructional decisions concerning the differentiated reading instruction they provide for their students without the assistance of researcher designed software and complex algorithms. Therefore, my study focused on how exemplary upper-elementary school teachers of reading make decisions about differentiating instruction within the core reading curriculum for at-risk, average and high-achieving readers who have varying needs, interests, and strengths. The following research questions were explored:

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- What is the nature of differentiated reading instruction in exemplary fourth- and fifth-grade reading teachers' classrooms?

- What factors do exemplary upper-elementary school reading teachers consider when making decisions about differentiating reading instruction?

Significance of the Study

Studying exemplary teachers' decision making has significance in the field of reading education for several reasons. First, teacher decision-making influences the reading practices, methods and materials employed, and these decisions greatly impact student learning (Shavelson & Stern, 1981; Solic, 2011; Stern & Shavelson, 1983). Instructional decisions, exhibited through judgments and actions, are reflections of teachers' beliefs and knowledge about content, pedagogy, curriculum, students, educational contexts and the purpose and value of obtaining an education (Shulman, 1986). These decisions occur prior to instruction (i.e., planning), during the natural classroom setting where the teacher must make decisions quickly while processing large amounts of information simultaneously, and during post-activity while the teacher reflects upon and evaluates the effectiveness of instruction (Borko, Shavelson, & Stern, 1981; Duffy, 1981; 1982a; 1982b; Hall & Smith, 2006; Stern & Shavelson, 1983; Shavelson & Stern, 1981; Westerman, 1991). Effective teachers, in particular, are "thoughtfully eclectic" (Duffy & Hoffman, 1999) and skillfully maneuver through this decision-making process, adjusting instruction to students' needs and interests (Allington & Johnston, 2001; Shulman, 1986).

Understanding the decisions exemplary teachers make when tailoring instruction for their students helps to fill a gap in classroom reading research. Although studies of teachers' decision making during reading instruction exist, studies focusing specifically on teachers' decision-making processes regarding one aspect of reading instruction,

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differentiation, have not been found. Insights from this study will illuminate the thoughts and judgments behind the actions exemplary teachers take to improve students' reading outcomes, revealing reasons behind their success with students. The findings can also reveal if upper-elementary teachers differentiate reading instruction similarly to the primary teachers studied by Connor and colleagues (2004; 2011). There is evidence suggesting that primary and intermediate grade level teachers' instructional decisions in reading are influenced by different factors (Norman, 2008). Given the changing demands of reading between the primary and upper elementary years, it would not be surprising to find differences in teacher decision making and practice.

Second, the findings from this study can inform the direction of future scholarly work in reading research and provide administrators, reading researchers and teacher educators additional insight into the minds of exemplary teachers who demonstrate instructional success. Understanding the thoughts, judgments and decisions behind effective teachers' actions can assist reading researchers and teacher educators in developing high-quality learning experiences to support and improve the teaching of current and future educators in this highly-complex and multidimensional process.

Definition of Terms

- **Differentiated Instruction –** is a framework for teaching that provides all students access to the same curriculum by using assessment data to tailor instruction to students' different learning needs (Tomlinson, 1995; Watts-Taffe et al., 2012). This term will be further discussed in Chapter 2.

- **Exemplary teachers –** are teachers who have been nominated by the district-level language arts coordinator and confirmed through principal recommendation as being highly effective at differentiating reading instruction for students on all levels of the reading continuum (e.g., more advanced readers to struggling readers). Specific criteria for determining teacher effectiveness were established prior to speaking with the language arts coordinator. Palmer, Stough, Burdenski, and Gonzales (2005) reviewed literature on teacher effectiveness and suggest four markers for identifying expert teachers. These criteria were used in the

selection of exemplary teachers: 1) a minimum of three years of teaching experience in a specific content domain and instructional context; 2) nomination by at least two constituencies who recognize the teachers' extraordinary teaching skills; 3) documented impact on student learning, and 4) appropriate certification and degrees for the domain in which they teach.

- **Highly effective teachers –** demonstrate consistent, positive student reading achievement outcomes on formal and informal assessments. Refer to the definition provided for exemplary teachers. In this study, these two terms will be used interchangeably.

- **Upper-elementary teacher** – a teacher who educates children in grade four or five.

Organization of the Study

The remainder of this dissertation is divided into five chapters. Chapter 2 provides a critical review of literature pertaining to differentiated reading instruction and teacher decision-making in general and reading specifically. Chapter 3 describes the dissertation study's design. Chapter 4 presents the findings of this study in research manuscript format. Chapter 5 links theory and practice by presenting a practitioner-oriented article about data-based decision-making for differentiating reading instruction. Lastly, Chapter 6 provides a review of the entire dissertation project and implications for research and practice on differentiated reading instruction.

CHAPTER 2
REVIEW OF THE LITERATURE

The purpose of this study is to elucidate exemplary teachers' decision-making processes when differentiating reading instruction for students with diverse needs using grounded theory methodology. This chapter analyzes and synthesizes the literature on differentiated instruction and teacher decision-making processes. It is important to note that when conducting research using grounded theory methodology, the literature is reviewed prior to beginning the study in order to sensitive the researcher to concepts and disciplinary perspectives in the field. If needed, the review of literature is refined following the data analysis process, which can help to "claim, locate, evaluate, and defend" the constructed grounded theory in relation to the topic under study (Charmaz, 2006, p. 163). This can serve as another source of analysis to "show where and how their [scholars in the field] ideas illuminate your theoretical categories and how your theory extends, transcends, or challenges dominant ideas in your field" (p. 165). Overall, the review will be structured to a) situate this study in current research, and b) elucidate a gap in the literature that my study will address.

The review is organized into two main sections: 1) differentiated instruction, and 2) teacher decision-making processes in general, and in reading, specifically. The studies for this review came from the following sources: 1) educational databases (EBSCO Host, Academic Search Premier, Education Full Text, and ERIC) 2) handbooks of research in reading and reading comprehension, 3) Internet-based searches (GoogleScholar) and 4) reference lists from the literature. The search terms included: differentiated reading instruction, individualized instruction, instructional choice, teacher thinking, teacher decision-making, teacher effectiveness, and teacher

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cognitive processes. Criteria also established guidelines for choosing the literature. Studies had to meet the following conditions to be included in the review: 1) published in a peer-reviewed journal or research collection, and 2) focused on teacher decision making in reading instruction and differentiated instruction. Both conceptual and empirical research were included.

Differentiated Instruction

Differentiation is meaningful and responsive instruction tailored to students' individual needs. According to Tomlinson (2000a, p. 2), it is "a way of thinking about teaching and learning that values the individual and can be translated into classroom practice in many ways". Differentiating instruction is therefore key to the sustainability of the American school system: "Success for all students is more than a slogan or even a laudable goal; it may be a key to the survival of the American public school as society has come to know it" (George, 2005, p. 186). Providing "equal" educational opportunities does not mean offering "identical" experiences for all students (Reis et al., 1998). Finding better ways to educate students on an individual basis will honor every child's right to excellent instruction as advocated by the International Reading Association (See IRA, 2000 to read the set of ten principles to serve as a guide for educational policy and practice in literacy).

Differentiation is not a new concept in the educational arena. According to Anderson (2007), differentiated instruction has been in existence since the initiation of the one-room schoolhouse. However, it became more of a national priority when Marland (1971), the U.S. Commissioner of Education at the time, charged Congress with the task of ensuring a more differentiated education for gifted and talented children starting at the federal level and moving to state and local levels. Low priority had been

given to this group of children as indicated by the small percentage of educational services available to enhance their learning opportunities despite the good intentions to do so. It was reported that through differentiated instruction, gifted students could more easily "explore content, ideas, problems or themes in greater breadth and depth than is possible through the regular curriculum, to use resources not normally available to them, and to develop their unique talents and interests" (Archambault et al., 1993, p. 105).

Eight years after the Commissioner's statement, a shocking report was released by the Education Product Information Exchange Institute (1979). The report indicated that 60% of fourth-grade students passed the mathematics pre-test at the beginning of the year prior to receiving instruction from the teacher. Taylor and Frye (1988) noted similar findings for average- and above-average fifth- and sixth-graders in reading comprehension skills. Educators quickly became concerned that the "best and brightest" were not receiving necessary modifications of the regular curriculum to profoundly impact their learning (Archambault et al., 1993), and that essentially, the curriculum was being "dumbed down" (Renzulli, & Reis, 1991). Then in 1990, the Individuals with Disabilities Education Act (IDEA) enacted a law designed to protect the rights of all students with exceptionalities, inclusive of students with learning disabilities as well as the gifted and talented, to receive a free appropriate public education (FAPE), which has since been reauthorized in 1997 and 2004. By doing so, educators are mandated to ensure students are provided special services that are responsive and tailored to their unique needs. Today, this notion has grown to include every student in their classroom;

yet, to offer students such an education, Tomlinson and Kalbfleisch (1998) suggest following a set of three principles specific to differentiation.

The first principle is that learning environments must feel emotionally safe for learning to take place. If students feel threatened, at risk or rejected, their first reaction is "fight or flight" or self-preservation, rather than learning something new. Secondly, students do their best learning when they experience appropriate levels of challenge. Content and activities that are too challenging or too easy will result in students shutting down. Lastly, each child needs to make his/her own meaning of ideas and skills, and therefore, cannot be forced to understand. Students can construct a web of meaning when teachers orchestrate thought-provoking activities that allow students to link new concepts to their past and current understandings and ideas. In other words, these principles entail cultivating a learning environment that is highly organized and where children feel safe, (Connor et al., under review), know their knowledge and interests are valued, and find the learning tasks moderately challenging and "respectful" (Tomlinson, 1995).

Utilizing ongoing assessments provides teachers with the kind of information to make decisions specific to their students' needs within these guiding principles. These assessments assist educators in gaining valuable information about students' readiness levels, interests, and learning profiles (Connor, Morrison & Katch, 2004; Connor, Morrison, & Petrella, 2004; Connor et al., 2011; Tomlinson, 1995). Readiness refers to the knowledge, experience and skills students bring to a particular learning situation. It can vary from situation to situation and is influenced by previous life experiences as well as their attitudes about school. Interests result from tapping into topics that capture

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students' curiosity and passionately motivate them to inquire further, thereby increasing persistence in learning. Learning profiles reflect how students learn best and include preferred learning style, culture, and gender (Corley, 2005). Whereas some students learn best by completing a group activity with peers, other students may prefer to work alone; yet, preferences can vary with the particulars of the task and the classroom climate.

Teachers can also use this information to establish flexible grouping patterns such as small group (e.g., based on similar or mixed interests, readiness levels, or learning styles), one-on-one, and/or whole group instruction. In addition, decisions about a) the content to be learned, b) the processes or sense-making activities to learn the content, and c) the final product (e.g., project or task) to demonstrate what was learned can be determined (Tomlinson, 2000b; Tomlinson et al., 2003). Whereas some learners may require additional scaffolding and ongoing support, other learners may quickly grasp the concept and work more independently.

Chapman and King (2005) suggest eleven practical ways to guide teachers toward differentiating instruction for their students: 1) know the standards; 2) vary instructional strategies and activities; 3) create a learning climate; 4) exhibit "withitness"; 5) provide a wide variety of materials and resources; 6) know the students; 7) assess before, during, and after the learning; 8) adjust assignments; 9) plan student focused opportunities; 10) use flexible grouping designs and 11) know change is gradual. According to Hawkins (2000), it takes a vast amount of confidence, efficacy and personal perseverance to sustain practices for differentiation; however, by attending to students' varying learning needs, teachers can become more "competent, creative and

professional" (Tomlinson, 2000b, p. 1), and meet the high-calling of honoring each child's educational rights (IRA, 2000).

Instructional Decision Making

Teachers play a significant role in deciding how to differentiate instruction for the variety of learners they teach (Connor, Morrison, & Katch, 2004; Connor, Morrison, & Petrella, 2004; Connor et al., 2011; Juel & Minden-Cupp, 2000; Jones, Yssel, & Grant, 2012; Tobin & McInnes, 2008). Because classrooms are multidimensional, dynamic and complex environments where events occur simultaneously and unpredictably and the teaching demands are continuous and insistent (Doyle, 1977), teachers are constantly making decisions regarding what to teach, how to teach and when to deliver the instruction. For example, they must strategically choose the content, the most appropriate materials, the most efficient organizational structures and the right amount and kind of instruction to maximize students' knowledge and skills and ensure they are engaged, motivated and focused on the learning activity or task.

Shavelson (1973) stated that the act of teacher decision-making is the basic skill of teaching. In fact, Jackson (1968) noted that teachers participate in around 200 or 300 decisions every hour; Stern and Shavelson (1983) reported it to be at least 10 decisions every hour, whereas Clark and Peterson (1984) stated that teachers make at least one decision every two minutes, specifically while teaching students, resulting in approximately 30 decisions every hour. Although differences exist in studies concerning the number of decisions teachers engage in, what we do know is that decisions are constantly made and put into motion. Teachers are continually thinking about, planning for, reflecting on and responding to various classroom stimuli (Doyle, 1977). Given the highly complex world a teacher must navigate on a daily basis, it is not surprising that

researchers began to focus on instructional decision making as a key characteristic of effective teaching (Duffy, 1981; Shavelson & Stern, 1981).

Teacher Effectiveness Research: Historical Overview

Teachers are the most important and influential school-related variable in a student's learning trajectory, and effective teachers are the key to ensuring students a successful academic journey (Darling-Hammond, 1996, Haycock, 1998; The National Commission on Teaching & America's Future, 1996). Yet, "effective teaching" is an elusive construct that continues to evolve. Prior to the 1960s, scholarly work in teacher effectiveness focused on a) teacher personality and educational characteristics (e.g., student attitudes and achievement), b) proving one method superior to another, and c) systematic observation of verbal interactions (Duffy, 1981). The problem was that these foci did little to explain the nature of teacher effectiveness. Then in the 1960s, the importance of measuring a teacher's effectiveness in educating children became a national priority in the educational arena due to the Post-Sputnik era. American children were perceived as badly educated when compared to children in the Soviet Union. To compensate for these negative perceptions about American education, a more challenging academic curriculum and rigorous teaching expectations were established (Brophy & Good, 1986). Starting in the early 1970s, research on effective teaching began to include more observations to investigate classroom interactions (Duffy, 1981).

Observational studies in teacher effectiveness research initially assumed a behaviorist perspective, focusing on discrete teaching skills and which teacher behaviors had the most significant impact on student achievement (Clark & Peterson, 1984). Often referred to as process-product research, the "process" of teaching was comprised of what teachers do in the classroom whereas the "product" of teaching

referenced student outcomes. The nature of the research lent itself to very linear designs: if teachers did "X," then student outcomes would be "Y".

Teachers were deemed as effective when they provided more opportunities to learn through direct instruction, enforced optimal classroom management techniques, and established psychological conditions where the classroom climate encouraged high expectations of students, exuded high teacher and student efficacy, and increased successful student experiences (Brophy & Good, 1986; Duffy, 1981). However, many researchers were less supportive of relying solely on process-product research to determine a teacher's classroom effectiveness. They criticized it for being too narrow and prescriptive, too simplified given the complexities of the classroom, and overly behavioristic (Duffy, 1981).

Eventually in the mid 1970s, other factors were thought to influence teaching and learning, in particular, the cognitive processes of teachers: thinking, judgments, and decision-making (Borg, 2006; Brophy & Good, 1986; Clark & Yinger, 1977; Clark & Peterson, 1984; Duffy, 1981; Rupley, Wise & Logan, 1986). According to Duffy (1981), cognitive perspectives on teacher effectiveness grew out of process-product research because it was believed that specific thought processes drove teacher actions or behaviors and that when effective decisions were made, student learning and achievement would improve. Essentially, in order to conduct instruction in a certain manner, teachers had to make decisions about which practices to enact.

It was during this shift in teacher effectiveness research, that scholarly work on teacher decision-making began to investigate the mental states of teachers. What do teachers think about when teaching students? What factors are guiding their thoughts?

Is there a model that can explain their thought processes? How do teachers differ in their thought processes? These are just a few of the burning questions researchers investigated. Each of these will be further explored in the sections to follow, along with a critical review of instructional decision-making in reading, specifically.

Studies of Instructional Decision-Making

Jackson's 1968 study was extremely influential in teacher decision-making research because it was one of the first studies to truly capture the complexity of the teacher's task in the classroom. Because of the difference he found "between what the teacher does when he is alone at his desk and what the teacher does when his room fills up with students" (p. 151), he characterized teachers' thought processes as occurring during preactive, interactive and postactive teaching phases. Decision making in the preactive stage occurs in the "empty classroom" and typically involves planning instructional practices using a variety of materials, resources, organizational formats and learning structures to carry out the classroom practices. Interactive decisions occur while teachers are on their feet and juggling activities in the "full classroom" (Duffy, 1982). Research also refers to the decisions while interacting with students as "in flight" decisions (McNair, 1978). Postactive decisions are reflective and evaluative in nature and concerned with how the plans and activities were previously carried out in the classroom.

Based on Jackson's distinction between the various phases teachers talked about when explaining their classroom instruction, research on teacher decision-making flourished. From 1977 to 1986, several reviews of research on instructional decisions were conducted, each with their own perspective for examining teacher decision-making (Clark & Yinger, 1977; Clark & Peterson, 1984; Duffy, 1981; 1982b; Duffy & Ball, 1983;

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1986; Shavelson & Stern, 1981; Stern & Shavelson, 1983). Yet, according to Shavelson and Stern's review of literature (1981), most research on teachers' thought processes was and continues to be undergirded by two basic assumptions. The first assumption is that teachers are professionals who behave rationally when making decisions and judgments in their complex teaching environment. And, for the most part, teacher judgments of students' intelligence and achievement are reasonably accurate (Hoge & Coladarci, 1989). While Clark and Peterson's review (1984) did not make a distinction between decisions and judgments because judgments were viewed as one cognitive component of teacher planning and decision-making, according to Stern and Shavelson (1983, p. 395), judgments refer to the "process of evaluating or categorizing a person or an object".

The rational model portrays decision-making as an information-processing activity where teachers attend to multiple classroom issues simultaneously using information about their students, the subject matter, and classroom and school environment to deduce a set of alternative hypotheses from which to choose to guide further action (Clark & Yinger, 1977; Kleven, 1991; Peterson, Marx, & Clark, 1978; Shavelson, 1973; Shulman & Elstein, 1975). Hypotheses are "tentative diagnoses or formulations" which define the "problem space of possible solutions to the diagnostic problem" (Shulman & Elstein, 1975, p. 6). In short, teachers observe the classroom, make a judgment based on their observations, and then decide to continue teaching as planned or consider an alternative route (Peterson et al., 1978). According to Clark and Yinger (1977), judgment and decision making are a result of teachers' experiences about how they make sense of the world. Teacher beliefs about education, teaching and

learning, and conceptions of a subject matter, stem from teachers' views of "the elements of the classroom situation that are most important, the relationships among them, and the order in which they should be considered" (p. 295). Thus, the rational model assumes a theory-driven approach to decision-making.

However, Shavelson and Stern further explain that the first assumption references the intentions of teachers and not their actual behaviors. Two reasons are provided to support their statement: 1) the immediacy of teaching situations may preclude teachers from making rational and reflective decisions, and 2) compared to some "ideal", rational model, teachers' information-processing and problem-solving capacity is limited because of the complex, teaching environment they must navigate. According to a study conducted by Doyle (1977), teachers reduce the environmental demands by engaging in the following cognitive strategies: 1) chunking – grouping of discrete events into larger units; 2) differentiation – discriminating among units in terms of their immediate and long-term significance, 3) overlap – handling of two or more events simultaneously, 4) timing – monitoring and controlling the duration of events, and 5) rapid judgment – interpreting events with a minimum of delay. The reality of teachers' instructional situations is further corroborated by Clark and Yinger (1977): even if instruction is going poorly as indicated by student behavior and alternatives are considered, teachers will rarely implement the alternatives.

To work efficiently in the reality of their complex situation, teachers construct simplified models of what is actually occurring, and as such, behave rationally within this "bounded rationality." Generally speaking, teachers' behaviors are reminiscent of their simplified model of reality. That is, teachers behave "reasonably" when making

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decisions and judgments in their complex teaching environment (Shavelson & Stern, 1981). The second assumption is that teachers' behaviors are guided by their judgments and decisions (Shavelson & Stern, 1981). If this were not the case, then teachers would, in essence, be mechanical robots on autopilot; yet, not enough is known about how thoughts become teacher actions.

Since Shavelson and Stern's review, several researchers claim that teachers are not theory-driven and reflective decision-makers, but rather technical managers of instructional materials and activities (Duffy, 1981; 1982a; 1982b; Duffy & Ball, 1983; 1986). As technicians, Duffy argues that teachers reduce the cognitive load by simplifying the teaching environment and pushing theory into the background so they can more easily "fight off the alligators" to keep the activities and routines running smoothly:

> The mental life of teachers has been revealed as a crowded, hectic place in which multiple demands compete for attention in a maze of conflicting complexities…the pressures of dealing daily with 25-30 youngsters forces teachers to think about (and to make decisions about) activity flow, management and monitoring, leaving little time to think about developing curriculum, supplementing textbooks, planning integrated activities, striving for elusive goals, spontaneously generating diagnostically-appropriate instructional cues, and so on. (Duffy, 1982b, p. 360)

Duffy further explains that there are four classroom conditions that dominate teacher thinking and push them toward routines rather than deciding upon alternative actions to classroom issues that arise. First, schooling is a social phenomenon where organization, group management, creation of learning climates and efficient routines must be a priority. Second, there is a drive for activity flow as it serves to aid teachers' classroom survival; if there is a breakdown, things can be sabotaged (Doyle & Ponder, 1977-1978). Third, implicit (e.g., administrative expectations) and explicit (e.g., drive for

accountability) mandates limit instructional options. The final conditions pushing teachers to maintain routines, is the unique role strain teachers assume at the classroom-level, school-level and professional-level. In addition to their traditional instructional roles, teachers also serve as substitute parents, counselors and first aid personnel. Based on these conditions, it is not surprising that teachers view their job as coordinating, pacing, regulating and overseeing student progress (Duffy & McIntyre, 1980).

Yet, Parker's (1984) study suggests that teachers can be taught to improve their interactive, rational decision-making processes – a valuable skill to obtain. According to Peterson et al. (1978), a potential outcome of failing to act or make rational decisions is decreased student attitudes and achievement scores. Parker believed the quality of teachers' decisions would improve in four interactive decision making areas: monitoring student behavior, considering alternate teacher behaviors, weighing these alternatives and selecting a teacher behavior. In turn, student attitude and achievement could be positively impacted.

In an experimental design, twenty-four elementary teachers from one school district were randomly assigned to a treatment (n=12) or control group (n=12). The experimental group was involved in nine weeks of guided reflection where teachers reflected on their interactive decisions, student behavioral cues leading to decisions, perceived alternatives, and process of weighing those alternatives, and role taking activities. In the role taking activities, the teachers consulted and guided teachers outside the group about their decisions during instruction. The control group read an article on interactive decision-making. After treatment, all teachers engaged in a

stimulated recall interview from one videotaped lesson where frequency of each decision-making area was scored.

The experimental teachers' recall of decisions was significantly different from the control teachers' recall of decisions (d =.8). They recalled higher frequencies of the four quality indicators for decision-making. However, observations of practices could have provided more information about the magnitude of the two training activities' effectiveness. Further, the findings are limited by the small group sizes and the difficulty of determining if the findings were related to significant differences between the two groups' actual decision making or just differences in the teachers' thinking processes during the interviews. Although teachers did demonstrate the ability to engage in more rational decisions when viewing the video, the study's findings about the effectiveness of the rational decision-making model during interactive teaching are inconclusive. And, the difficulties of a rational approach to making decisions is further confirmed when teachers' plan instruction.

Research concerning teachers' decisions during the planning or preactive stage also supports Duffy's claims about the importance teachers place on maintaining a smooth flow of instruction. In 1980, McCutcheon observed and interviewed twelve teachers in grades K-6 from six different schools about their planning process and the nature of their plans. She found that teachers did not follow an objective-oriented, or rational approach to the planning process; nor did the teachers weigh alternatives. Instead, teachers went with their first idea, which was activity-oriented; the plans served as a "memory-jogger" resembling a "grocery-store list" of the activities and events to cover during class instruction. Other reviews of research have referred to teachers'

plans as a "blueprint" (Stern & Shavelson, 1983, p. 282), "mental plan or image" (Morine-Dershimer, 1978-1979, p. 85), or "broad outline of what is possible" (Clark & Peterson, 1984, p. 44) for teachers carrying out their instruction.

According to Eisner (1967) education objectives are not "psychologically efficient" when implementing planned instruction; yet, when compared to interactive decisions, planning or preactive decisions are more conscious than unconscious (Shavelson & Stern, 1981) and thus, teachers can choose the content to be covered, sequence of topics, and allotment of time for activities and learning. In their review, Shavelson and Stern (1981) found that teachers consider many elements when planning the task or activity: a) subject matter taught, which usually comes from the textbook or basal, b) materials to be manipulated or observed, c) the activities or things that will be taking place during the lesson, which is inclusive of sequencing, pacing and timing of materials and content, d) goals or aims of the lesson, e) students' abilities, needs, and interests, and f) social and cultural context (community and groupings of students). According to Clark and Peterson (1984), teachers plan instruction daily, weekly, and/or yearly in relation to their short- and long-range goals.

It is important to note, however, that simply because teachers may not engage in thinking about and weighing the pros and cons of choosing from several alternative routes does not indicate that they are ineffective (Duffy & Ball, 1986). In fact, according to Duffy and Ball (1986), teachers, even effective ones, serve as technicians or managers of their instructional environment. They suggest that given the complexity of thinking, the classroom and directly linking a teacher's thoughts to student learning outcomes, perhaps teachers are effective because they are good managers of students'

time on task, a practice noted to impact student outcomes (Brophy & Good, 1986). Two studies substantiate these conclusions and further extend the knowledge base about expert teachers' decision-making processes (Putnam, 1984; Putnam & Duffy, 1984).

Effective teacher decision-making

While many reviews on teacher decision making suggest that teachers make few decisions about curriculum and instruction (Clark & Peterson, 1984; Duffy & Ball, 1986; Stern & Shavelson, 1983), evidence suggests that beyond procedural decisions, teachers are capable of making substantive decisions about content and student understanding (Putnam, 1984; Putnam & Duffy, 1984). Substantive decisions are those decisions designed "to promote student understanding of the content and processes involved in reading, and include decisions about what to teach, interpretation of the content, exploitation of critical moments, qualitative restructuring of student responses, selection of alternative explanations or strategies, and affective responses to student interaction with content" (Duffy & Ball, 1983, p. 15). The researchers state that content decisions occur when planning instruction and pedagogical decisions occur during teachers' real-time instruction. Termed "pedagogical maneuvering", exceptional or expert teachers do more than just maintain well-established routines, pacing, and classroom activity flow, they also respond to student errors, redirect student responses to a task, select alternative ways to model the concept, change the lesson itself, and give different instructional examples to ensure effective delivery and student understanding (Putnam & Duffy, 1984).

To describe an exceptional first- and second-grade teacher's preactive and interactive decisions, Putnam (1984) collected documents, conducted interviews, and observed Ms. Ferero's practices and followed with a debriefing and verification session

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from September to March. Putnam found that Ms. Ferero's preactive and interactive decisions throughout the year were strongly related in that later decisions were guided by former decisions, and governed by her long-term intended outcomes. As a "goal-directed" teacher, she traversed through six sequential decision-making phases: 1) data collection and synthesis; 2) preactive decision-making; 3) data collection and interactive decision-making; 4) reflective thinking, synthesis and preactive decision-making; 5) interactive decision making; and 6) data collection and verification of student achievement. Essentially, she collected data, synthesized the data, and made decisions based on the data. Ms. Ferero consciously processed information and made decisions; planned instruction guided by her beliefs, knowledge, and assumptions about learning and her role in the classroom; used her schemata to organize and simplify the teaching task; kept her use of resources to a minimum and very simple; and used many different recording systems that were simple and student-user friendly. She also established routines and procedures at the beginning of the year to create a classroom environment conducive to increased learning opportunities.

Similar findings were gathered when Putnam studied her colleague, Duffy (1984), using Shavelson and Stern's (1981) decision-making model. Duffy, an expert teacher, teacher educator, and influential reading researcher, went on sabbatical for one year to teach high and low group students while Putnam observed and described his planning and instructional decisions. Supportive of her first study, she found that expert teachers' conceptions of learning play a role in their preactive and interactive decisions, which are related and revolve around content, pedagogy, classroom management and student behavior; interactive decision-making takes various forms throughout the school year

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depending on the goals and function of instruction; and there are consequences of critical decision-making. Duffy's critical preactive decisions in management and pedagogy assisted in the planning of successful instruction, whereas his critical interactive decisions either helped or hindered instruction and occurred less often.

Ms. Ferero and Duffy had complex instructional schema, consisting of knowledge and beliefs about teaching and learning. Unlike some teachers, they did not consider other factors such as their principal's views and punishing students and, therefore, could focus on student learning. Putnam stated that Ms. Ferero did this by exerting "power over the environmental factors rather than letting them control her" (p. 25). Peterson and Comeaux (1984) further expand upon expert (i.e., experienced) teachers' knowledge structures based on their recall of classroom events and their analysis of, and approaches to, problems during interactive teaching in comparison to novice teachers. Cognitive ability measures were also administered to determine if there were differences in the classroom analysis related to this element.

After viewing three pre-established classroom scenes containing 17 role-played classroom events, ten teachers were interviewed and asked to describe the events and decisions that could have been made to change the course of events. Findings revealed that the experienced teachers had more highly developed procedural knowledge structures, which assisted in the decision-making process of solving problems. Because verbal ability was significantly related to recall of events only and the experienced teachers had higher scores in this area, the researchers suggest that the underlying difference between novice and experienced teachers' recall and analysis is not in their ability to do so, but in their knowledge structures. Experienced teachers tended to

elaborate on answers and justify their comments demonstrating their procedural knowledge obtained from years of experience.

The importance of expert teachers' highly developed knowledge structures leveraging instructional decisions is also evident in several other studies comparing expert and novice teachers' decisions. According to Fogarty, Wang and Creek (1983) and Livingston and Borko (1990), when compared to novice teachers, expert teachers are more adaptive and flexible with their instruction, utilizing highly interactive activities and driven by their initial instructional goals. They are efficient and responsive to students' needs, accessing and activating relevant knowledge from well-developed, complex and interrelated content and pedagogical schema, and improvising when needed. On the other hand, most novice teachers have 'tunnel-vision' and struggle to respond to students' needs because of less developed schemas. Typically, they do not consider students' prior knowledge, histories and pedagogical principles, and are not as comprehensive in their content coverage. Further, Westerman (1991) found expert teachers' lesson evaluations reflect the importance of meeting their goals and students' needs in the classroom, whereas novice teachers are unsure of how to use information gained during instruction to plan future lessons. Ho and Liu (2006) found similar results when expert and novice teachers taught students with intellectual disabilities.

Summary of Studies in Instructional Decision-Making

Over the years, there have been various perspectives about teachers' instructional decision-making. Researchers in support of the rational approach agree that teachers are professionals who diagnose an issue, form several solutions based on the issue and then choose from the best option for the given situation. Although, teachers' cognitive processes are constrained during real-time instruction, they adjust to

the multiple demands by using strategies to reduce the cognitive load placed upon them. Other researchers contend that teachers act more like technicians with the goal of maintaining well-established routines and procedures to ensure smooth activity flow. Despite these differing views, teachers' instructional plans fall in line with 'teacher as technician'. In order to maintain a smooth flow in the classroom, teachers' plans are activity-oriented rather than objective-driven, and unlike "in flight" instruction, their decisions are more conscious. Yet, the literature comparing expert and novice teachers supports both views, where expert teachers cross into each perspective.

While research demonstrates that teachers, of all experience levels, tend to engage in the latter (i.e., technician), there is evidence that expert teachers tend to make more rational decisions during real-time instruction. They use "pedagogical maneuvering" to respond to students' learning needs while instructing. Expert teachers demonstrate more support for the rational model as they tend to be more goal-oriented in their instruction throughout the year, planning instruction based on their conceptions of learning, content, pedagogy, management and student behavior. Perhaps it's the expert teachers' distinguishing element, their highly-developed schema based on years of teaching experience, that separate them from beginning and novice teachers' ability to be more responsive to students' needs. Expert literature outside teacher education also supports these findings (Feldon, 2007; Jarodzka, Scheiter, Gerjets, & Gog, 2010). Although we cannot link teacher decision making to effective teaching, these findings bear reason to believe that student outcomes will be higher in classrooms with teachers who are experts in their field.

Decision-Making Studies in Reading Instruction

The landmark studies and theoretical models on teacher decision-making in general were foundational to the teacher decision-making research in reading instruction. In fact, many of the scholars (i.e., Shavelson & Stern, Duffy and colleagues) were prolific in both areas of study addressing teachers' decision-making processes. Researchers were particularly interested in teachers' thought processes when teaching reading because reading alone is a complex coordination of multiple cognitive functions working simultaneously to make meaning (RAND Reading Study Group, 2002). Paired with the immediacy and unpredictability of teachers' complex teaching environment and the various needs of their students (Doyle, 1977), it was imperative to further understand teachers' thinking when maneuvering, making decisions and considering multiple and dynamic contextual variables.

While many studies were conducted during the 1980s, numerous studies have continued to expand upon the knowledge base of teacher decision-making in reading instruction. Initial research conversations in decision-making focused on the nature of the process through the creation of decision-making models and testing aspects of those models. By laying the groundwork for research in reading education, studies in reading have taken a different avenue by concentrating more on teachers' decisions and their relation to various factors associated with reading. Teacher and student knowledge, beliefs and experiences, external elements beyond teacher or student control, and professional learning opportunities are factors identified in the studies as having an impact on teachers' decisions in reading instruction. Common among all of these elements points to the importance of the educational context in which teachers' work. As evidence indicates, anything in the environment surrounding and affecting the

educational experience can be identified as an element of the educational context
(Vygotsky, 1978). The remainder of the review is organized by the contextual effects of
a) students, b) teacher beliefs and knowledge, c) policy, and d) professional learning
experiences.

Effects of students on teachers' decisions in reading

Studies reveal teachers' decisions in reading instruction are predominantly
motivated by the student, both as an individual and in group settings (Borko et al., 1981;
Buike, 1980; Englert & Semmel, 1983; Hoffman, 1979; Howard, 1988; McNair, 1978-
1979). Evidence also reveals that a majority of the instructional decisions concerning
the student occur during the planning phase (Borko et al., 1981; Buike, 1980; Hoover,
1985; Howard, 1988) and are modified as teachers see fit (Buike, 1980). Hoover's
(1985) study exemplifies the importance of the student when making classroom
instructional decisions. The researcher asked 24 teachers from Kindergarten through
seventh-grade to complete the following statement "In order to teach reading effectively
in my class, I make the following decisions…" and rank order their decisions. Teacher
responses, despite grade or experience level, fit into two broad categories: evaluation of
students and student instruction, where teachers most critical decisions dealt with
student group placement followed with individualizing instruction to the needs of the
group or the individual student. Buike (1980) suggests that grouping students, while a
complex process itself (Schwartz, 2005), helps to reduce the complexity of teaching
reading because rather than focusing on each and every student in the class, teachers
can diagnose the general needs of the group as a unit.

According to Borko and colleagues (1981), teachers' decisions for forming
groups during the preactive stage are based on a variety of student attributes. Reading

achievement, sex, participation in class and problematic behavior are student characteristics the researchers found teachers typically take into consideration. Grouping decisions also vary based on the experience level of the teacher. Borko and Niles (1982) conducted a mixed method study using self-report techniques such as questionnaires and descriptions in addition to policy-capturing methodology with student teachers (n=40) and their cooperating teacher (n=27). The researchers discovered practicing teachers used more complex strategies for grouping and judging mastery of content. While all teachers placed students into a high, middle and low reading group, student teachers tended to base their estimates of students' probability of performing well and grouping decisions only on reading achievement and self-correction of errors during oral reading whereas teachers also used nonacademic indicators (e.g., class participation, behavior and social competence).

Despite the variety of information that can be used for forming groups, most grouping decisions are based on the teacher's perception of each student's academic competence (Borko et al., 1981; Buike, 1980). Consequently, reading groups are generally organized homogenously where instruction varies widely from group to group. In one study (Barr, 1974) reviewed by Borko and colleagues (1981), teachers' grouping decisions led to differences in the group's instructional pace. The researchers found that the middle and high groups were instructed at a faster pace than the lower ability groups, which afforded them the opportunity to learn a larger amount of information. In another study (Englert & Semmel, 1983) investigating the prompts teachers provide in response to students' reading miscues, the researchers found teachers initiate more prompts when working with poorer readers and the prompts typically address the

semantic acceptability of their reading errors (Hoffman, 1979). In doing so, the teachers'

instructional decisions were particularly concerned that students understood the

meaning of what was read.

Conversely, Buike (1980) found that while the teachers in her study spent more

time with the low reading group, the time allotted did not necessarily equate to "more

instructional time" for improving a student's reading skills. Instead, the teachers were

occupied with managing student behavior issues, which cost the students valuable time

for learning. Because evidence suggests that instruction varies between groups, if

grouping structures are rigid and formed years in advance with limited opportunities for

students to move between groups as their needs change, which was found to be the

case in one study (Norman, 2008), student learning could be greatly impacted.

Research purports that these decisions about instruction can be motivated by teachers'

beliefs and knowledge in relation to reading (Borko & Niles, 1982).

Effects of teacher beliefs and knowledge on teachers' decisions in reading

Over the last 30 years, studies in reading research have investigated the

consistency between teachers' beliefs and knowledge and decision-making. Of these

studies, teacher beliefs included beliefs about reading in a general sense (Bawden,

Buike, & Duffy, 1979; Borko & Niles, 1982; Davis & Wilson, 1999; Howard, 1988;

Rupley & Logan, 1985), beliefs about how one reads and how reading develops, in

particular (Friesen & Butera, 2012; Kinzer, 1988), and beliefs about reading teaching

methods and learning (Friesen & Butera, 2012; Ibanez & Ocampo, 2011). In regards to

teacher knowledge, one study explored teachers' knowledge of basic reading content

(Rupley & Logan, 1985), the five reading components (e.g., phonemic awareness,

phonics, fluency, vocabulary and comprehension), their students and reading pedagogy

(Bentley, 2007). Another study investigated teachers' professional, personal and practical knowledge (Friesen & Butera, 2012). Within these studies, there are controversial findings about the impact of either beliefs or knowledge on teachers' decisions.

Numerous studies (Bentley, 2007; Borko & Niles, 1982; Friesen & Butera, 2012; Ibanez & Ocampo, 2011; Richardson, Anders, Tidwell, & Loyd, 1991; Rupley & Logan, 1985; Solic, 2011) have found teachers' beliefs and knowledge, especially expert and experienced teachers of reading (Howard, 1988; Putnam, 1984; Putnam & Duffy, 1984), come to weigh heavily in the decisions teachers' make when planning and implementing reading instruction. Considering expert teachers of reading, who are typically classified as experts based on years of teaching experience (Palmer et al., 2005), it makes sense that their beliefs, formed after years of trial and error, have been found to strongly impact their decisions (Fogarty et al., 1983; Livingston & Borko, 1990; Peterson & Comeaux, 1984). Further, studies that found consistency did so across multiple grade levels and experience levels: from pre-K teachers (Friesen & Butera, 2012) to the primary (Bentley, 2007) and intermediate grades (Davis & Wilson, 1999), to content area teachers in grades five, six and seven (Davis & Wilson, 1999; Ibanez & Ocampo, 2011), and also included teachers at the preservice and inservice levels (Borko & Niles, 1982). More specifically, scholars have determined teachers' beliefs and knowledge, especially knowledge of instructional reading approaches, play a significant role when making implementation decisions within a new core reading program (Bentley, 2007). Qualitative methods (e.g., interviews, observations and questionnaires) were employed to capture these findings.

Through a correlational design, researchers have also found a positive relationship between knowledge, in particular, the interaction of teacher knowledge and amount of explicit decoding instruction, and students' reading gains (Piasta, Connor, Fishman & Morrison, 2009). The more instruction provided by teachers on each end of the knowledge continuum, the worse or better the students' word identification scores. While teacher knowledge did not directly affect student word reading growth, we can conclude that the pedagogical decisions, in this case in decoding instruction, are tied with the knowledge teachers' possess, which impact instruction and ultimately student learning. For example, teachers who scored lower on the knowledge test often provided inaccurate examples, responded inappropriately to students, and were less able to correct student errors, thereby indicating evidence of a smaller decoding instructional repertoire. Lack of reading comprehension knowledge can also greatly impede text analysis for use in text-based discussions with students as well as how teachers' respond to and support students' understanding (Kucan, Hapgood & Palincsar, 2011).

These studies suggest that given the impact of knowledge on decision-making, it is important for teachers to possess a comprehensive knowledge base. Shulman (1987) recommends building teacher knowledge in the following categories because the "usefulness of such knowledge lies in its value for judgment and action" (p. 14): content knowledge, general pedagogical knowledge, curriculum knowledge, pedagogical content knowledge, knowledge of learners and their characteristics, knowledge of educational contexts, and knowledge of educational ends, purposes, and values and their philosophical and historical grounds (p. 8). Teachers must take the content

knowledge and elucidate it skillfully through reasoning and action so students can grasp the information through use of various instructional approaches.

In spite of these studies supporting the influence of reading beliefs and knowledge on practices, several other studies reveal that the reading practices chosen by teachers do not always align with their beliefs (Kinzer, 1988; Konopak, Readence, & Wilson, 1994). Using a correlational study design, Kinzer (1988) investigated differences in the belief systems between 83 preservice and 44 inservice primary grade teachers and whether their instructional choices reflected their theoretical orientation. Each teacher was provided a packet of information containing two sets of 15 statements, each set specific to either how one reads (text-based, reader-based, or interactive) and how reading ability develops (skills, holistic, differential acquisition), and chose five that reflected what a teacher should know. Teachers also chose from one of three prewritten second grade lesson plans in vocabulary, comprehension and syllabication, each lesson representing a different theoretical orientation to teaching reading: text-based/mastery of specific skills explanations, reader-based/ holistic explanations, and interactive/differential acquisition.

While the teachers typically chose reader-based/holistic explanation lesson plans, teachers did not choose lessons that matched their orientations about text-based/skill mastery and interactive/differential explanations. Rather, lessons not reflecting their beliefs were chosen. The researchers noted that when compared to inservice teachers, preservice teachers more often chose lessons aligned with their beliefs. This study suggests that the two belief statements may serve to differentially impact decision-making. Caution must be taken, though, because this study relied

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solely on teacher reports. Observations of teachers' instruction in each of these reading aspects could result in differential findings.

Bawden and colleagues (1979) provide a potential solution to this 'consistency' dilemma regarding beliefs in their study of teachers' conceptions of reading. Approximately 850 elementary school teachers were surveyed and 23 observed and interviewed regarding their reading conceptions, the nature of the conceptions, the development of their conceptions over time, and the influence of teachers' conceptions on teachers' instructional decisions in reading. The findings reveal that a teacher's conception of reading is reflected in their reading practices, but it tends to be fluid, changing over time, within various contexts (e.g., grade level and students) and interacting with non-reading conceptions (e.g., teacher-pupil respect, classroom management and routine, assistance needed for different levels of learners, etc.), which sometimes dominate over their reading conceptions. Thus, Bawden et al. (1979) refer to reading conceptions as a "free floating" element. Based on these outcomes, the researchers list seven general principles regarding teacher conceptions about reading:

1. Teachers do have conceptions of reading.

2. Most teachers have more than one conception of reading.

3. Teachers also explain their instructional decisions with categorizable statements that represent "non-reading" conceptions.

4. Some teachers possess more complex conceptions than others.

5. Teacher conceptions seem to vary in stability from teacher to teacher.

6. A teacher's reading conception may be related to the grade level taught and to the pupils' ability level.

7. Teachers modify and change their conceptions of reading and reading instruction over time. (p. 7-10)

Davis and Wilson (1999) report of a situation concerning teachers' beliefs in relation to the last principle. While they found consistency between a teacher when teaching third- and later seventh-grade, when teaching third-grade she would abandon her holistic approach in favor of a more teacher-directed and skill-specific approach when planning for and instructing students in preparation for the state-mandated test. Essentially, there are times when environmental realities may prevent teachers from carrying out instruction consistent with their beliefs.

Effects of policy on teachers' decision-making in reading

Policy initiatives and mandates have been identified in the literature as another contextual factor influencing teachers' decisions in teaching reading. In the last decade, there has been an aggressive push for policy regarding curriculum reform, high-stakes testing and accountability (Coburn, Pearson, & Woulfin, 2011; Pearson, 2004). Known as one of the most influential educational policy initiatives, the No Child Left Behind (NCLB, 2001) legislation supports test-based accountability where student performance and teacher effectiveness is tied to sanctions and rewards, and in some states (e.g., Florida), teachers' pay is also tied to their students' performance. Thus, researchers concluded that studying teachers' concerns implicated in their decisions and instructional actions, is a critical topic to explore. Specifically within the studies reviewed, the researchers investigated the impact of testing and reading programs and materials on teachers' instructional decisions in reading (Ciminelli, 2010; Hoover, 1985; Howard, 1988; Mendoza, 2011; Norman, 2008; Russavage, Lorton, & Millham, 1985; Schulz, 2005). Subsequently, both positive and negative impacts have been reported.

In 2005, Schulz interviewed six accomplished K-2 grade level teachers (i.e., National Board Certified Teachers [NBCT]), from five different schools in one suburban

school district, about their perspectives concerning the influence of high-stakes tests on their decisions and professionalism. The united focus on instruction in curriculum and standards was viewed positively, and the most significant positive influence of testing on decisions was the use of test scores for planning. Collectively, the teachers believed it was their professional responsibility to ensure student progress as measured by accountability tests. In another study, Bentley (2007) also investigated primary grade teachers' decisions but in regards to implementing a new core reading program. The teachers appreciated all the basal had to offer for making instructional decisions in order to meet state standards and goals. They stated that it provided "helpful materials and instructional suggestions regarding teaching the five Scientifically-Based Reading Research (SBRR) components" (Bentley, 2007, p. 86): phonemic awareness, phonics, fluency, vocabulary and comprehension. Yet, despite the few positive consequences of testing and reading programs, the negative effects tend to outweigh the positive effects, and unfortunately, the students are the ones who lose out in the end.

Since the 1980s, several studies have shown how reading programs and testing impact teachers' classroom instructional decisions (Davis & Wilson, 1999; Duffy & McIntyre, 1980; Norman, 2008). Underlying many curricular and instructional policies supporting testing and reading programs is the assumption that teachers cannot be trusted to make good decisions on their own. Control is, therefore, taken away from teachers and placed in the hands of policymakers who claim to know what is best for every student. Commercialized reading materials are scripted for easy implementation (Duffy & Hoffman, 1999), and high-stakes tests mandated to "motivate" teachers to make better decisions during their instructional reading time. As a result, teachers have

been observed to abdicate decisions to these powerful and coercive policies (Duffy & McIntyre, 1980).

Basals and other mandated reading programs constrain, overwhelm or limit teachers from making the best instructional decisions to improve their students' reading (Ciminelli, 2010; Duffy & McIntyre, 1980). In a recent study (Ciminelli, 2010) investigating teacher decision making in reading instruction with choices and mandates, elementary school teachers often talked about the need for a "common language" or a sense of consistency across grade levels in literacy instruction. Yet, when a "common language" in the form of a mandated phonics program was adopted and supplemented their instructional choices, most teachers were resentful about the directive. Teachers felt constrained and unhappy with the enormity of the program and its lack of authenticity.

Concerning basals, specifically, numerous studies have found they typically govern teachers' instructional decisions (Duffy & McIntyre, 1980; Duffy, Roehler & Putnam, 1987; Duffy, Roehler & Wesselman, 1985; Roehler et al., 1986). Surprisingly, teachers are aware of the inadequacy of the basal reading materials (Russavage et al., 1985), but will still continue to use them as their main instructional tool, choosing to supplement rather than subtract from the basal (Bentley, 2007; Hoover, 1985). Because of the driving power of the core for making reading instructional decisions, researchers attempted to provide instruction on how to make more reasonable decisions within the basal, and although student learning improved from modifying the basal, the taxing nature of classroom constraints will likely result in teachers relinquishing decision-making to the prescriptive nature of the basal (Duffy et al., 1985; 1987).

Zeig (2007) further supports the stronghold of basal textbooks on teachers'

instruction. She surveyed 667 elementary school teachers, including reading coaches

and other instructional staff about their beliefs and decisions related to the teaching of

reading. Based on the assumption that teachers' decisions influence their behaviors, we

can postulate that their reported practices are a reflection of their classroom

instructional decisions. The survey reports indicated that a majority of the teachers rely

on a single basal reading program and leveled guided reading books for their reading

instruction (Zeig, 2007). Only 4% of the teachers reported not using the core reading

program. Although this survey was only conducted in one state, we can assume that

because other states must also follow federal policies similar to the ones in Florida,

survey results would deviate minimally.

While the studies reviewed indicate that teachers' instructional decisions are

predominately driven by the basal, other studies demonstrate the implications of such

decisions. The heavy reliance on the basal is problematic because the "master

developers" typically design basals with one audience in mind: the "average" reader

(McGill-Franzen, Zmach, Solic, & Zeig, 2006). Whole-class pedagogical practices and

above-grade level anthologies that do not promote a developmental approach based on

student assessment for differentiating instruction, dominate the design. Further, the

sequence of skills is random and the instructional design obscure (Duffy et al., 1985;

1987) and the "one-size-fits-all" approach emphasizes teaching too many strategies and

skills, and lacks the appropriate scaffolds (Block & Pressley, 2007; Dewitz, Jones, &

Leahy, 2009). Consequently, students who struggle and students who excel in their

reading proficiency are impacted the most by the inadequacy of the core reading

program. Duffy and Hoffman (1999) further state potential effects of using this "silver

bullet" for teaching reading:

- Children are hurt because laws mandating one "perfect method" prevent teachers from using different methods with kids who need them.

- The professional nature of teaching is threatened because restrictive laws discourage the thoughtful innovation, risk taking, and creativity that is at the heart of professional life.

- Our professional community suffers because legislating a single answer silences those colleagues exploring alternative possibilities. (p. 10)

Yet, studies (Ciminelli, 2010) demonstrate there is potential for teachers to

include more appropriate, student-centered and authentic activities and lessons when

given more autonomy over their reading instruction. Teachers presented with several

different instructional options, will less likely decide to include the basal and more likely

include guided reading, integrated language arts instruction, readers and writers

workshop and literature circles (Ciminelli, 2010).

Similar to mandated reading programs, policy regarding high-stakes testing and

accountability has been found to negatively impact teachers' decisions. In Norman's

study (2008) of experienced second-, third- and fourth-grade teachers, the larger need

of passing the test interfered with the teachers providing instruction specific to each

student's needs, thus little differentiated instruction occurred. These teachers often

pushed off responsibility to the special education teachers and other pullout teachers to

educate the least proficient readers; thereby depriving struggling students of

opportunities to increase their reading proficiency; students who so desperately need

multiple and scaffolded opportunities to learn (Brophy & Good, 1986; Englert, 2009;

Gersten et al., 2001).

Norman (2008), Schulz (2005) and White and colleagues (2002) also found that these decisions seemed to be heightened in classrooms where teachers, inservice and preservice taught or interned in a tested grade level. According to Norman (2008), decisions in second-grade were based on motivating students to read whereas decisions in third- and fourth-grade revolved around helping students pass the state mandated test. Rereading passages from worksheets, highlighting and underlining information and eliminating answers that don't answer the question were the main strategies employed by the intermediate grade level teachers. Similar to inservice teachers, preservice teachers placed in a tested grade level for their internship, tended to make decisions in reading focused on test preparation (e.g., worksheets, test-taking skills), narrowing of the curriculum, pacing charts and timelines (White, Sturtevant, & Dunlap, 2002).

Despite their attention to test preparation, the teachers were torn because their beliefs did not align with their decisions to employ test-based activities. In general, the preservice teachers felt they sacrificed good instructional time by being put in a position to make hard choices (White et al., 2002). The teachers' concerns exemplify Jackson's (1968) finding about teachers serving in a role of "dual allegiance" – working for and against the school, attempting to preserve "both the institution and the individuals who inhabit it" (Jackson, 1968, p. 154). In these studies and many others, the institution won out over the inhabitants. However, it is important to note the limitations of Norman's study, specifically. While Norman's (2008) study demonstrates the stronghold of standardized testing on teachers' decisions, collecting data at any other time of the year besides the 10 weeks prior to the standardized test administration may have resulted in

different findings for these experienced teachers. Further, the fact that the teachers all taught at a Title-1 school may have placed undo pressure on them to perform when compared to schools that do not receive federal monies. These two studies, in addition to Davis and Wilson (1999), demonstrate that despite experience level, high-stakes testing appears to impact all teachers' decisions to some degree.

Effects of professional learning experiences on teachers' decision-making in reading

There is an abundant amount of evidence documenting the impact of professional learning experiences on teachers' decisions in their reading instruction (Correnti, 2007; Gersten et al., 2010; Hilden & Pressley, 2007; Jinkins, 2001; Nichols et al., 2005; Sailors & Price, 2010; Scanlon, Gelzheiser, Vellutino, Schatschneider, & Sweeney, 2008; Solic, 2011). In the 1980s, when research on decision-making in general began to be investigated more closely, learning opportunities focused on training teachers to make rational decisions in their reading instruction (Duffy et al., 1985; 1987; Parker, 1984). For example, in an attempt to give teachers more cognitive control in their classrooms, Duffy and colleagues (1985; 1987) taught ten third-grade teachers to provide explicit explanations about how to make reasonable decisions within the prescribed procedures of the basal. Although the students demonstrated more awareness and achievement of strategy use and the teachers proved to be more effective when making rational instructional decisions, maintaining the rational decision making model in the time constraints was taxing on teachers.

Later research investigated the impact of curricular programs (e.g., core reading programs) (Bentley, 2007; Ciminelli, 2010), instructional models (Jinkins, 2001) or new reading practices for teaching on teachers' decisions (Nichols et al., 2005; Sailors &

Price, 2010). Common among the studies is the importance of providing teachers with enough time to practice the learned strategies and skills in their classroom with ongoing support through guidance, feedback and collaborative learning structures with colleagues (Desimone, 2009; Hochberg & Desimone, 2010; Penuel, Fishman, Yamaguchi, & Gallagher 2007). For instance, in a study conducted by Bentley (2007), teachers felt they were provided adequate professional development prior to implementing a new core reading program; however, they wanted additional support throughout the year to ensure effective decision-making within the program by providing more time for reflection, discussion and the development of ideas.

Alignment of the content from the learning experience with teachers' beliefs about reading and learning is another element that was prominent in the research. In a study (Ciminelli, 2010) examining teachers' decisions with and without mandates, the phonics program teachers were told to implement lacked coherence with teachers' beliefs about the importance of incorporating authentic reading practices. Subsequently, teachers were less likely to take the initiative to implement the program to fidelity, if at all. Lastly, the principal's support also influences teachers' decisions to implement learned strategies and skills (Bentley, 2007; Concannon-Gibney & Murphy, 2012; Gersten et al., 2010). When these elements are in place, teachers' instructional decisions will likely include implementing the new reading practices and models for instruction.

One study (Jinkins, 2001), in particular, closely aligns with the premises of differentiated instruction, which proved to be beneficial for the teacher and students. Three teachers from a multi-age primary classrooms participated in professional

development on an assessment-driven instruction model where they were taught the reading/writing processes and connections between achievement and instruction based on assessment. Running records, writing samples, teachers' knowledge of students and observations were collected six times over 12 weeks on nine students to determine teaching strategies, resources and grouping needs. Lesson plans, instructional dialogue, informal conversations and interviews were also collected. After twelve weeks of implementing this teaching/learning cycle, seven of the nine students made at least a half a year's reading growth with four of the students obtaining equivalent of a full year's growth. Writing sample results of each student were scored based on a writing continuum and demonstrated gains on the characteristics within each stage. This suggests that when teachers understand and use data to make informed instructional decisions based on the instructional cycle, students' reading growth is accelerated. The two students who did not make reading gains as indicated by the assessments, were not adequately matched with resources. The students' teacher misunderstood the purpose of the running record and had these two students reading books at their frustration level. This further points to the importance of matching resources and approaches to students' needs.

Teachers also observed changes in student behaviors and attitudes. The students were given choice in their reading material, took more responsibility in their learning overall and engaged in authentic reading and writing. Consequently, student learning, engagement, motivation and success increased. Teacher behavior was also impacted. Generally speaking, teachers moved from whole to small group and one-on-one instruction where their learning expectations were clearly communicated and

spontaneous and specific feedback was provided. While the professional learning experience was impactful for teachers and students, the findings are specific to the context and it is difficult to know if the gains were from focused attention on the instructional teaching/learning model or normal student development.

Studies on teacher preparation programs are also included within the umbrella term "professional learning experiences" because educational coursework begins a teacher's professional learning journey (Sailors, 2009). While there are fewer studies examining preservice teachers' educational experiences on their decisions, two studies (Shefelbine & Hollingsworth, 1987; Wedman & Robinson, 1998) investigated the effects of a semester long reading course on prospective teachers' decision-making processes and one study (Maloch et al., 2003) investigated the effects of the entire reading teacher preparation program from three different reading programs identified as "excellent" by the National Commission on Excellence in Elementary Teacher Preparation for Reading Instruction on beginning teachers' understandings, beliefs, decision-making. Findings were similar to practicing teachers' learning opportunities where the time, support and practice assisted preservice teachers' abilities to make better instructional decisions.

Prior to and after completing a three credit hour course to learn how to analyze and correct reading disabilities (Wedman & Robinson, 1998), twenty-seven preservice teachers responded to four problematic reading classroom scenarios. From pre- to post-test, factors driving teachers' decisions shifted from relying on student interest and motivation to choosing better instructional strategies and materials to assist students' diagnosed reading problems. Yet, when it comes to making decisions during real-time

instruction, preservice teachers do not exhibit as many thoughtful decisions (Shefelbine & Hollingsworth, 1987).

The instructional decisions in reading that were potentially troublesome for beginning teachers were those that were highly complex, requiring the teacher to think of multiple variables simultaneously. Diagnosis, planning of instruction, lesson balance and word recognition instruction were a few of these areas of complexity. Difficulties making decisions in these areas were also a result of poor classroom management of routines and procedures as well as weak knowledge of the reading process. The researchers suggest that more training was needed in these areas because decisions that were less complex, could be planned in advanced, didn't require many changes, and were amenable to specific suggestions (e.g., matching students to appropriate texts, implementing types of reading practices beyond the usual round robin format and developing background knowledge) were easier for novice teachers to make. It appears that mastery of some instructional procedures can be achieved in the context of undergraduate coursework (e.g., basic routines) and others that require more complex decision making require authentic practice with students. Or, perhaps, it is the quality of the teacher preparation program that impacts preservice teachers' reading decisions. The findings of a study conducted by Maloch et al. (2003) exemplify this point.

Graduates of reading specialization programs (RSP; n=40), reading embedded programs (REP; n=33), and general education programs (GEP; n=28) were phone interviewed three times through their first year of teaching. The researchers asked teachers how best to teach reading, the progression of their students, and the relationships between their instructional practices and their teacher preparation

programs. When compared to GEP graduates, the RSP and REP graduates emphasized making instructional decisions and negotiations with their colleagues regarding responsive and mindful teaching and appeared to invest in learning communities to help support their beliefs and practices. GEP graduates reported decision-making based on structure and curriculum/material coverage rather than students' needs and felt disempowered when making negotiations with others.

The main difference between the RSP and REP programs when compared to the GEP programs is that the latter programs had a strong reading focus in all their coursework. Even content-area methods courses had literacy related activities, and students were required to complete at least 150 hours of field experience. RSP and REP teachers reported that these experiences contributed to their beliefs, understandings and decision-making in reading. While observations are needed to confirm teacher reports in this study, the findings suggest "when reading teacher preparation programs strategically prepare teachers through the provision of purposeful course work, apprenticeship opportunities, and a clear vision and focus on reading that cross all of the preservice teachers' experiences, this preparation and learning may be sustained in the face of pressing demands of teaching" (p. 453).

Summary of the Studies on Decision-Making in Reading

Instructional decisions in reading are impacted by multiple contextual factors. For one, knowledge of the student drives teachers' decisions. Secondly, teachers' decisions are also greatly impacted by their beliefs about reading and learning as well as their knowledge of the reading process. Additionally, policy initiatives particularly focusing on testing and reading programs highly influence what teachers choose to do in the classroom. And, finally, decisions are influenced by the professional learning

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opportunities teachers are provided, beginning first with teacher preparation programs and continuing into their professional lives.

Limitations in the Literature

During the past few decades, a large body of scholarly work has focused on theories of differentiated instruction and documented effective practices and structures for meeting students' needs (Connor, Morrison, & Katch, 2004; Connor, Morrison, & Petrella, 2004; Tomlinson, 1999; 2000a; 2000b; Tomlinson et al., 2003). Another body of literature has attended to teachers' decisions before, during and after real-time instruction in general and in reading, specifically. Moreover, in studies investigating teachers' decisions in reading, the effects of teachers' beliefs, knowledge, professional learning experiences, and policy mandates have also been documented. Yet, little is known about teacher decision-making related to differentiation. For example, decisions about assessment, classroom management, materials choice, and length and frequency of instruction and lesson focus have only been explored briefly (Ankrum & Bean, 2008). More specifically, how reading instructional decisions vary from student to student and the factors contributing to these decisions need further study. Even less is known about this phenomenon with exemplary, upper-elementary teachers of reading.

Given that teaching reading is complex, multi-faceted, and requires using a variety of materials and approaches, and there is substantial variability among students' learning needs, studying exemplary upper-elementary teachers of reading is of utmost importance. Evidence on expert teachers of reading has concluded that in relation to novice teachers, expert teachers have a comprehensive view of the classroom which helps them to manage classroom activities and make "pedagogical maneuvering" decisions while teaching in order to respond to students' needs. While studies

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investigating effective teachers' instructional decisions are prevalent, there is much variability on how the expert teachers were selected. A majority of the studies employed one standard of teaching effectiveness: reputation, National Board Certification, student achievement, years of teaching experience, or administration evaluation or recommendation. Only two studies considered a combination of several criteria for choosing expert teachers. Given the elusiveness of teacher effectiveness, Jackson (1968) and Palmer et al. (2005) suggest it is important to consider more than one standard of teacher effectiveness when identifying teachers for a study. Doing so makes it easier for researchers to compare results of a similar study. For example, a study that uses student outcomes as the standard for effectiveness may yield different findings than a study using years of teaching experience or administrator nomination.

After a comprehensive review of the research on teacher expertise, Palmer et al. (2005) suggested adopting the following markers for identifying expert teachers in the field: 1) teachers should have a minimum of three years of teaching experience in a specific content domain and instructional context for which the teacher is being considered an expert; 2) teachers should be independently nominated by at least two constituencies who recognize the teachers' extraordinary teaching skills; 3) because "student performance should be the *sine qua non* of teaching expertise" (p. 22), there should be documentation of the teachers' impact on their students' learning; and 4) teachers should have appropriate certification and degrees for the domain in which they teach where deep subject matter knowledge is assumed to exist. Exemplary fourth- and fifth-grade teachers were identified and selected using the criteria delineated by Palmer et al. (2005). Insights from this study will illuminate the decisions and actions of

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exemplary teachers to improve students' reading outcomes, uncovering possible

reasons behind their "thoughtfully eclectic" (Duffy & Hoffman, 1999) ways of obtaining

success with students, and thereby helping to fill a gap in classroom reading research.

CHAPTER 3
RESEARCH METHODOLOGY

The purpose of this study was to understand how exemplary upper-elementary teachers' differentiate reading instruction. Using a constructivist grounded theory approach in qualitative research (Charmaz, 2006), this study sought to answer the following research questions: 1) What is the nature of differentiated reading instruction in exemplary fourth- and fifth-grade teachers' classrooms? 2) What factors do exemplary upper-elementary school reading teachers consider when making decisions about differentiating reading instruction?

The essence of this qualitative study was to gain an understanding of the "inherent or phenomenal property or essential characteristics of some thing (object or experience)" (Schwantz, 1997, p. 130) – in this case, instructional decision-making when differentiating reading instruction – through "thick" exploration using nonnumeric language (Denzin & Lincoln, 2005). In doing so, qualitative research usually entails the following general processes:

> the researcher studies a problem that calls for an exploration; relies on the views of participants; asks broad, general questions; collects data consisting largely of words (or text) from participants; describes and analyzes these words for themes; and conducts the inquiry in a subjective and reflexive manner. (Clark & Creswell, 2010, p. 66)

Given these general processes, qualitative research must be flexible as it explores the complexity of a social context by focusing on the participants' behaviors, personal views and perceptions of the phenomenon under study (Bogdan & Biklen, 2007). Essentially, the qualitative researcher strives to make sense of how or why things occur through close examination and interpretation of participants' actions and discursive patterns.

This study used a constructivist approach to grounded theory methodology. This chapter presents the epistemological and methodological framework informing this dissertation. After elucidating the overarching theoretical framework, the research design, data collection and analysis are outlined. Then, the chapter closes with an explanation of the evaluation criteria specific to a constructivist grounded theory methodology, a subjectivity statement, and a review of limitations of the study.

Epistemology and Theoretical Perspectives

This study was informed and guided by my assumptions regarding "the nature of reality, the relationships between the knower and what can be known, and how best to discover reality" (Annells, 1996, p. 379). Consequently, this study was situated in the constructivist paradigm with underpinnings in symbolic interactionism, which asserts that reality, or "truth" is constructed during exchanges or interactions with the outside world (Crotty, 1998). Knowledge, therefore, does not exist independently of others. Rather, it exists in the knower (Schwantz, 1997); is dependent upon the social realities of our world; is communicated through shared "symbols", such as language (Crotty, 1998); and can be "local, relative, historically based, situational, and contextual" (Puddephatt, 2006, p. 9).

Because we interpret how others see us during social exchanges (Bogdan & Biklen, 2007), we are inextricably connected to the people and objects we come in contact with. According to Bogdan and Biklen (2007), "People act, not on the basis of predetermined responses to predefined objects, but rather as interpreters, definers, signalers, and symbol and signal readers" (p. 25). Ultimately, meaning making is contextualized, continually in flux, and thus contingent upon where we are, what we are doing, and who we are with. In turn, there are countless constructions of reality, many of

which are shared through various cultural activities and events (Guba & Lincoln, 1994; Kendall, 1999). This means the researcher must seriously study and understand the participants' actions and perspectives. The researcher does this by becoming connected to and reflected in the research process (Charmaz, 2006), using his/her beliefs, perceptions and assumptions to further reflect, understand and interpret the meanings participants bring to the phenomenon under study (Denzin & Lincoln, 2005; Mruck & Mey, 2007).

This study sought to explore exemplary upper-elementary teachers' constructed realities regarding their decisions and practices when differentiating reading instruction. Teachers constructed their understanding of differentiated reading instruction during interactions over time with colleagues, administrators, and students as well as with their teaching materials, classroom resources and other school related learning experiences. Therefore, each teacher in this study explained the decisions impacting her practices when differentiating reading instruction in relation to her unique, everyday lived experiences. These actions were understood and interpreted when the researcher entered "the defining process" (Bogdan & Biklen, 2007) – in this case, while teachers were observed during and interviewed following reading instruction. It is important to note that the teachers' personal explanations of their decisions and practices are not "truth" but rather provide one lens for understanding the phenomenon under study (Flick, 2009). That is, an interpretivist approach to research champions the use of methodologies that "provide insights, reveal meaning and acknowledge the possibility of multiple answers to problems" (Goulding, 1998, p. 50). This allowed for the theory to be grounded in the data, illuminating the exemplary teachers' lived, multiple realities about

how they differentiate their reading instruction. As such, the findings are not generalizable to other situations, but rather are specific to the context in which the data were collected and analyzed. The outcome of this process is a possible explanation (theory) of the phenomenon under study.

Research Design

Grounded theory methodology is a systematic, inductive process involving the constant comparison of data to generate a conceptually dense, abstract and situationally-based theory to describe a phenomenon (Bryant & Charmaz, 2007a). It provides the freedom to write and research outside established theories that may have a "dubious fit and working capacity" (Glaser & Strauss, 1967, p. 4) in relation to the studied phenomenon. Generating theory entails a process of simultaneously and purposefully collecting, coding and analyzing data until a point of saturation is reached where no new information on the studied phenomenon can be found. At this point, it is assumed the generated theory is grounded in the data, and adequately represents the situation under study.

A constructivist approach to grounded theory methodology informed and guided the data collection and analysis in this study (Charmaz, 2006). As such, the researcher is deeply embedded in the phenomenon about which he or she is theorizing. This is accomplished by using his/her background knowledge, experiences, and beliefs to interpret the participants' constructed realities. The research questions sought to understand exemplary fourth- and fifth-grade teachers' decision-making factors and practices when differentiating reading instruction. Interviews and observations in the form of field notes captured the teachers' lived realities and provided deep insight into each educator's teaching world.

Participant Selection

Initial selection of the participants was purposeful and limited in advance by certain criteria in order to obtain cases of information relevant to the study (Flick, 2009; Morse, 2007). First, all teachers selected were nominated by the district language arts coordinator as exemplary fourth- or fifth-grade teachers of reading for students of all ability levels. Students' formal and informal reading test scores, principal evaluations or recommendations based on observations of effective differentiation, appropriate certification and degrees for the domain in which they taught, and a minimum of three years of teaching experience were the defining criteria the district language arts coordinator used when nominating teachers (Palmer et al., 2005). Fulfillment of the criteria and consent gave teachers an opportunity to be included in the study.

Because I had received permission from the principal in addition to the district's reciprocal research review board agreement with my university, approval to conduct the study was granted after receiving the following items: 1) fingerprinting and background check and 2) copies of the university's Institutional Review Board (IRB) form authorizing permission to proceed with the study (Appendix A). All items were sent via mail to the district's Human Resource Department.

When speaking with each teacher, I explained the project, time commitment, and how she was nominated for participation; answered questions; and requested her involvement in the study, which was incentivized by offering a gift card to be given at the close of the study. Informed consent forms (Appendix B) were provided to the selected teachers. The process resulted in a total participant sample of four female teachers from two elementary schools. The study took place in Lisa's fifth-grade and Devon's fourth-grade classroom at Otter Elementary School. Two Manatee Elementary School

classroom teachers also participated in the study: Sarah and Anna. Pseudonyms were assigned to protect the identities of the teachers (Flick, 2009). All participants were experienced teachers, serving more than seventeen years of teaching experience each and averaging 20 years of experience. Each teacher had also graduated from a traditional teacher preparation program and was certified in the state of Florida to teach children in grades K-6.

Participant Description

Anna was a fourth-grade teacher of all subject-areas at Manatee Elementary and was in her 17th year of teaching. As the gifted and talented teacher, she taught a diverse gifted cluster class that consisted of four gifted, five high-achieving, five typically-achieving and five special education students. In addition, eleven of her students were visually impaired, several had speech impediments, two were on 504 plans, one had been diagnosed with Tourette's Syndrome and one boy had a physical disability and used a modified tricycle to navigate the school.

Sarah was a departmentalized, fifth-grade Language Arts, National Board Certified teacher (NBCT) who also taught at Manatee Elementary. She was in her 22nd year of teaching, and taught three fifth-grade classes a day. While all the fifth-graders were at similar reading levels, the class used for this study was her most diverse class of students. She had four special education students, one of those students was autistic, and the remaining 18 students had a range of reading strengths and weaknesses that "kept her on her toes."

Devon was a fourth-grade teacher at Otter Elementary and, like Anna, was in her 17th year of teaching children. The year this study was conducted, Devon had looped with her group of fourth-graders, and was completing her second and final year with

them. In addition, to working with the same children from the previous year, she was assigned five new students. Devon had one ESOL student and four students who really struggled with reading; however, a majority of her students met grade-level expectations in reading.

Lisa was one of the fifth-grade Language Arts and Social Studies teachers at Otter Elementary and was in her 22nd year of teaching. Besides her own class of assigned students, she also taught one other class of fifth-grade students in both content areas. Similar to Devon's classroom, most of her students performed on grade level; only a few students struggled and one was an ESOL student.

Site Description

Otter Elementary School and Manatee Elementary School were high-performing schools located in a mid-sized district in northeast Florida where 87% of the district's student body population was white, 9% African-American or black, and 4% Asian, Indian and other minority. This district had been ranked number one out of 67 districts on the state criterion test for the past four years. Notably, Otter and Manatee had earned high ratings under the state scoring system: Otter had earned the grade of an "A" for the past 10 years and Manatee had earned mostly "A" and only three "B" ratings. Further, both schools had a teaching force of highly-qualified educators.

Otter served a student population totaling 773 pre-kindergarten through grade five students. The enrollment status was as follows: white (85.5%), African American (2.5%), Hispanic (5.7%), Asian (3.9%), other minority status (2.4%). Approximately 10.9% of the students were eligible to receive free or reduced-price meals each day, a percentage that steadily increased over the years. Otter Elementary was known for its high parental involvement. Parent involvement in school activities had exceeded 90%

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since the school's opening almost 25 years ago, and the Parent Teacher Organization (PTO) was well funded by small businesses to continually support teacher and student programs throughout the year. There were six teachers in kindergarten and seven teachers in each of grades one, two, three, four, and five. The teaching staff also consisted of an instructional literacy coach, special education teachers, guidance counselors, speech and occupational therapists, and a behavioral specialist.

Manatee was a Title 1 school receiving federal funding and served a more economically and ethnically diverse student population: Asian (2%), Black (11%), Hispanic (5%), unknown racial/ethnic group (7%), and White (75%). There were 618 pre-kindergarten through grade five students enrolled. Approximately 44% of the student population received free or reduced-price meals. Similar to Otter, Manatee also had high parental and community involvement to create an environment geared to the success of all students. Manatee Elementary School had six kindergarten teachers, seven first-grade teachers, six second-grade teachers, six third-grade teachers, and four fourth- and fifth-grade teachers, in addition to many support staff personnel.

Data Collection

There are several characteristics of the data collection process that set grounded theory methodology apart from other types of qualitative research (Hood, 2007). Two distinguishing components are theoretical sampling and theoretical saturation (Charmaz, 2006; Glaser & Strauss, 1967). These features were used to ensure the collection of data with sufficient depth, scope and suitability to depict events (Charmaz, 2006). Theoretical sampling is the process of collecting, coding, and analyzing data for the purpose of building an emerging theory. This process entails a form of abductive reasoning. Abduction denotes the interplay between inductive and deductive analysis by

confirming previous conceptions and hypotheses through the collection of more data to

determine the most plausible explanation for, in this case, teachers' decision making

about differentiated reading instruction (Bryant & Charmaz, 2007b). In short, theoretical

sampling was the "corkscrew" that tightened the theoretical formulations and ensured a

close match with the data (Charmaz, 2006). It was a process that directed what data

was collected next in order to clarify or further understand and inform a concept or

category in development. When no new insights could be determined to help support,

refine and/or extend the emerging concepts and properties, a point of saturation was

reached. At this point, data collection was stopped.

Interview and observation data were collected during the month of May 2013.

Participants were contacted through email to establish a time and place to meet for the

initial semi-structured interview. Structuring an interview in this manner allowed for the

conversation to be guided by the participants' responses rather than requiring strict

adherence to a set of questions (Flick, 2009). All interviews were audio-recorded and

transcribed. Field notes were also collected to enhance understandings of the teachers'

decisions and practices when differentiating reading instruction. In doing so, the

observations acted as a guide to structure future interviews for the purpose of

elaborating and refining theory construction.

Interviews

The interview process took the form of an unfolding story: "it is emergent,

although studied and shaped; open-ended, however framed and focused; intense in

content yet informal in execution; and conversational in style but not casual in meaning"

(Charmaz & Belgrave, 2012, p. 361). The goal was to elicit the teachers' interpretation

of their experiences when making instructional decisions about differentiating reading

instruction. To begin the process of interviewing, questions were guided by the literature review. Obtaining a better understanding of the factors contributing to teachers' decisions when tailoring instruction to meet their students' learning needs assisted in sensitizing the data. Reviewing the literature in this field sensitized or brought awareness to any decision-making factors teachers could potentially report. Sensitizing also meant that, although there was an awareness of the factors research had reported to impact teacher decision-making processes, knowledge of these factors did not drive or constrain interpretations of the teachers' actions and statements. The concepts uncovered from the literature acted as "*points of departure* to form interview questions, to look at data, to listen to interviewees, and to think analytically about the data" (Charmaz, 2006, p. 17, emphasis in original).

Teachers were interviewed four times. The initial interview occurred during the first week of May 2013. The goal of this interview was to initiate discussion of teachers' perspectives about their instructional decisions and practices when teaching students with different needs, interests and strengths. Basic conceptions and beliefs about reading instruction were also explored (Appendix C for the interview guide). The second, third and fourth interview occurred immediately following the first, second and third teacher classroom observation (Appendix D for the interview guide). The purpose of the three post-observation interviews was to garner a deeper understanding of and further refine or elaborate categories under construction within the emerging theory. This was accomplished by using the observation data and information from each interview to ask more pointed questions in the interviews to follow.

During the interview process, teachers' responses were audio-recorded, and notes and reflections were written about the process as long as it served not to distract the teachers or make them feel uncomfortable. Charmaz and Belgrave (2012) suggest the interview should be informal and conversational and continually build rapport and respect for the participants' time and willingness to be a part of the study. Therefore, the teachers' comfort was of highest priority during the interview process.

Field notes

Field notes recorded during observations served as another source of data to account for what was heard, seen, experienced and thought in regards to the evolving theory (Bogdan & Biklen, 2007). Charmaz (2006) states observations can "spark your ideas and provide evidence for your hunches" (p. 38). Observations also shaped teacher interviews and provided data related to differentiated reading instruction that would have been missed if only interviews were analyzed. Extending key analytic ideas was the focus (Charmaz, 2006) by recording teachers' "real-time" actions and language use in the classroom setting. As a non-participating observer in the classroom, distance was maintained while striving to record the complex social context under study.

Each teacher was observed three times in two weeks for the duration of the Language Arts block starting after the initial interview in May. Because the two fifth-grade teachers were departmentalized and therefore, taught more than one class of students, only one class was observed for this study. Using student assessment data, the class with the most diverse reading needs was chosen.

Running field notes were recorded on a laptop computer during each of the three observations (Appendix E for an example). The field notes helped to elucidate exemplary teachers' practices and decisions in the natural classroom setting while

teaching reading to a diverse student population. Clarification was sought from the teachers concerning actions observed. Each interview helped focus future observations to further refine the grounded theory.

Data Analysis

The data analysis process is another defining characteristic of grounded theory methodology and is inextricably linked to theoretical sampling and saturation (Glaser & Strauss, 1967; Hood, 2007). Constant-comparative analysis assisted in theorizing the four teachers' "constructions of reality" grounded in the data by "reaching up to construct abstractions and simultaneously reaching down to tie these abstractions to data" (Charmaz, 2006, p. 181). This was accomplished through an action-oriented coding process (i.e., open, focused, and theoretical) and enhanced through memoing (Charmaz, 2006) and situational mapping or diagramming (Clarke, 2003; 2005). Memoing evoked the emergence of new insights and ideas and raised categories to conceptual and abstract levels, whereas diagramming helped to clarify the relationships among and between the categories through a visual representation. Thus, the writing and mapping component of constructing a theory was just as important as collecting, coding and comparing data. Keeping the emerging theory closely connected to the data by comparing it with other data and memo-writing about the relationships between and among codes revealed through diagramming, allowed for rich conceptual and theoretical understanding to be generated (Charmaz, 2006). Conjectures that were formulated at different levels of generality during the analysis changed as more data were integrated and compared with the existing concepts and categories (Glaser, 1965).

Memo-writing

Memo-writing is the "glue" of grounded theory analysis because it moves codes to theory. Memos facilitated the development of the relationships between and across codes at all stages of the data collection and analysis process in order to transform the data into theoretical renderings (Lampert, 2007). These informal analytic notes "catch your thoughts, capture the comparisons and connections you make, and crystallize questions and directions for you to pursue" (Charmaz, 2006, p. 72). In short, memo-writing played a central role in the development of the grounded theory by directing and fine-tuning subsequent data collection and coding (Appendix F for an example). Advancements in thinking about the phenomenon under study occurred as a result of using memos. Gaps in the evolving theory were identified that had to be strengthened through more data gathering and analysis.

Coding

The four initial teacher interviews were transcribed within two days of the interview process, and all the transcriptions were read in their entirety many times to become familiar with the data. Then each line containing meaningful units was openly coded or named using a language of action instead of topics (e.g., confessing versus confession). Coding with gerunds allowed processes to unfold (Charmaz, 2006). These codes or labels summarized, categorized and accounted for each segment or meaningful unit. In other words, initial coding was a safeguard to ensure the emerging codes were a close fit with the data. This was the first move toward making analytic interpretations and building a theoretical framework (Appendix G for an example).

Through constant comparative methods (Glaser & Strauss, 1967), analytic distinctions were generated to further develop a better understanding of the data. These

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comparisons lead to the next phase in coding: focused coding. According to Charmaz (2006), these codes "are more directed, selective, and conceptual" than the initial coding phase, and allow one to "synthesize and explain larger segments of data" by organizing the open codes into categories (p. 57). To bring more coherence to the process, the most significant and/or frequent codes were used. The categories constructed during focused coding facilitated understanding of the teachers' perceptions by forming links and relationships between and among the open codes (Appendix H for an example).

The last phase of coding was theoretical coding. Theoretical codes are integrative; they account for the relationships among and between the categories created during focused coding. According to Charmaz (2006), these codes move the analytic framework into a theoretical direction by providing more precision, clarity, coherence and comprehensibility within the emerging theoretical rendering. Charmaz (2006) explains the theorizing process as "the practical activity of engaging the world and of constructing abstract understandings about and within it" (p. 128).

Situational mapping (Clarke, 2003; 2005) assisted in the construction of the theoretical codes by providing a visual representation to "tease out" relationships that did not exist and further refine and clarify the strengths and weaknesses between and among the categories and subcategories constructed during focused coding (Charmaz, 2006). By moving back and forth between focused and theoretical codes through use of diagramming and the interpretive renderings of the links, a theory was constructed and grounded in the data to symbolize the teachers' constructed realities (Appendix I for the theoretical model). Consequently, exemplary upper-elementary teachers' decision-

making factors and practices when differentiating reading instruction to meet their students' diverse reading needs were illuminated.

Evaluation Criteria

Quality indicators helped to ensure the credibility and trustworthiness of my study's findings (Beck, 1993; Brantliner, Jimenez, Klingner, Pugach, & Richardson, 2005; Charmaz, 2006; Chiovitti & Piran, 2003). In addition to developing respectful and trusting researcher-teacher relationships, which eased the co-construction of data during interviews and observations by allowing for a high level of comfort (Charmaz, 2006; Hall & Callery, 2001; Norton, 1999), the set of criteria outlined by Charmaz were followed: credibility, originality, resonance and usefulness.

Credibility

Credibility refers to the researcher's "intimate familiarity with the setting or topic" (Charmaz, 2006, p. 182) and was addressed through multiple classroom observations of each teacher within the context of her reading instruction. To provide substantial evidence for my research claims, increased familiarity with the classroom environment was obtained through the observations. Holding the interviews in the teachers' classrooms following each observation also gave me an understanding of the setting and topic outside the teacher's real-time classroom instruction.

Originality

Originality denotes the ability of the study to present fresh categories and new insights into the field of research (Charmaz, 2006). Because little is known about the decision-making processes of exemplary upper-elementary teachers when differentiating reading instruction, my study offers new ideas and understandings to extend reading research. The theory constructed from the data provides a new lens

through which to better understand and further support teachers when teaching reading in addition to opening new doors for teacher educators and future research in this area of study.

Resonance

Resonance can be claimed when the "categories portray the fullness of the studied experience" (Charmaz, 2006, p. 182) and associations are formulated between the participants' lived experiences and larger social systems. To strive for resonance, participants were selected purposefully to obtain cases of information relevant to the study. Further, classroom observations followed by teacher interviews provided data related to differentiated reading instruction that would have been missed if only interviews were analyzed. Relevant literature was integrated to support the study's findings and make connections across various research disciplines. Lastly, member checks with teachers ensured the interpretations and final analysis of the data were consistent with the participants' perspectives. In doing so, another aspect of resonance was met: to "offer [participants] deeper insights about their lives and worlds" (Charmaz, 2006, p. 183).

Usefulness

The usefulness of a study is accounted for when people can use the interpretations of the analysis (Charmaz, 2006). The categories must move beyond mere description of "generic processes." Instead, the theoretical renderings must provide fresh insight and new knowledge into the studied experience for the purpose of contributing to a better world. This study makes a valuable contribution to several key stakeholders in education: reading teacher educators, reading education researchers, and district and school administrative personnel. Two chapters are written as journal

articles to supply these stakeholders with knowledge about the decisions and practices of exemplary teachers' differentiated reading instruction in grades four and five. Chapter 4 was written for a researcher-oriented audience to extend current understandings in the world of reading research. Chapter 5 was composed as a practitioner-oriented article to provide a real-world lens for using the findings to support educators in their everyday teaching.

Writing

Beyond the development of the theory and to make the final product compelling, the aesthetics of the writing also served as evaluative criteria. The written report should be "intuitive, inventive, and interpretive" (Charmaz, 2006, p. 183). The way in which we write is a reflection of what we see and experience (Charmaz & Mitchell, 1996). Through the researcher's voice, the respondents' experiences can be conveyed evocatively, enabling readers to construct images of the phenomenon (Charmaz & Mitchell, 1996). By taking these factors into consideration during the design, implementation and write-up of the research, the trustworthiness of the study's findings were enhanced.

<div align="center">

Subjectivity Statement

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My lens for understanding the teachers' thoughts, judgments and decision-making processes and practices when teaching reading to students with diverse literacy needs is informed and guided by my position as a former third-grade elementary school teacher, a mentor teacher for prospective teachers, an instructor for teacher candidates, and a doctoral student. Essentially, as an active and reflexive participant in the co-construction of data "we stand within the research process, rather than above, before, or outside it" (Charmaz, 2006, p. 180). Therefore, each of these identified roles will

provide a slightly different vantage point in which to frame and shape my assumptions and interpretations inherent in the findings of the individuals' responses under study.

As a former elementary school teacher, I understand the day-to-day workings of a classroom. Further, as a mentor teacher for pre-service interns and a teaching assistant for undergraduate and graduate level reading courses, I have also been able to witness the difficulties prospective and current educators experience when making informed decisions about ways to adequately tailor instruction to meet the needs of their students. These roles will allow me to empathize with and gain a deeper understanding of the teachers' responses. Lastly, becoming a full-time doctoral student will also influence my interpretations of the data because of the newfound knowledge I have gained about teaching reading.

Teachers acquire unique experiences in and out of the classroom, and these experiences shape their beliefs, knowledge, and perceptions of instruction. By bringing my personal experiences and assumptions to the study as well as passion, curiosity, openness and care, I hope to enrich my interpretations of the teachers' decision-making factors and practices when differentiating reading instruction for students in grades four and five.

Limitations

Participant selection could serve as one limitation to this study. In addition to using the nomination process as described, researcher observations of teachers' classroom reading practices prior to conducting the study could have ensured the selection of teachers considered to be "exemplary" in the teaching of reading. The district language arts coordinator may have a different definition of "exemplary" than others may have based on her own understanding of the criteria used for teacher

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selection. Therefore, a different pool of participants from the district could have been nominated for use in this study. By providing in-depth description of the teachers' practices, I hope to overcome this potential limitation of the study.

Summary

This study used a constructivist approach to grounded theory methodology to explore exemplary upper-elementary teachers' interpretations of their decision-making when differentiating reading instruction and how these decisions are carried out in the classroom. To make sense of the teachers' statements and actions related to this phenomenon, data was concurrently compared and analyzed at all levels of the coding process until no further insights were apparent. This action-oriented, constructive process resulted in a conceptually rich and abstract theory to explain the actions, decisions, judgments and thoughts of exemplary fourth- and fifth-grade teachers when differentiating reading instruction. Chapter 4 presents the findings of this study in research manuscript format. Chapter 5 links theory and practice by presenting a practitioner-oriented article about using data to differentiate reading instruction. Lastly, Chapter 6 provides a review of the entire dissertation project and implications for research and practice on differentiated reading instruction.

CHAPTER 4
THE NATURE OF AND FACTORS IMPACTING EXEMPLARY UPPER-ELEMENTARY
TEACHERS' DIFFERENTIATED READING INSTRUCTION

Differentiating reading instruction based upon students' needs, interests and

strengths is a critical part of improving students' reading competence (Allington &

McGill-Franzen, 2009; Connor, Morrison, & Katch, 2004; Connor, Morrison, Petrella,

2004; Connor et al., 2011; Duke, Pearson, Strachan & Billman, 2011; Reis, McCoach,

Little, Muller, & Kaniskan, 2011). Effective differentiation is accomplished by using

assessment data to tailor instruction so all students are provided access to the same

reading curriculum (Watts-Taffe et al., 2012). For differentiated instruction to have the

greatest impact on students' reading outcomes, high-achieving, average, and low-

achieving readers need different amounts and kinds of instruction (Connor, Morrison, &

Katch, 2004; Connor, Morrison, & Petrella, 2004; Connor et al., 2009; 2011; Juel &

Minden-Cupp, 2000). Connor, Morrison and Petrella (2004) found that third-grade

students who tested average and below-average in language and reading

comprehension skills improved significantly when comprehension instruction was more

explicit and managed by the teacher (e.g., explicitly teaching grammar and vocabulary,

and managing highly interactive discussions). In contrast, students testing above

average achieved higher comprehension growth when they had responsibility for

managing their learning in activities focused directly on meaning construction (e.g.,

more opportunities to learn in cooperative groups or with a peer). Instruction conducted

in this manner has an accumulating effect on reading outcomes from year to year

(Connor et al., in press).

Yet, despite the scholarly work elucidating how to maximize student learning

through differentiated instruction, previous classroom reading observation studies in

grades K-6 have only explored the quantity and quality of reading instruction during the Language Arts block where frequency counts and descriptions of the reading practices as well as mode of delivery were documented (e.g., Donaldson, 2011; Ness, 2011; Pressley, Wharton-McDonald, Mistretta, & Echevarria, 1998; Pressley et al. 2001; Taylor, Pearson, Clark, & Walpole, 1999; Taylor, Pearson, Clark, & Walpole, 2000; Taylor, Peterson, Pearson, & Rodriquez, 2002; Wharton-McDonald, Pressley, & Hampston, 1998). In the studies specifically exploring exemplary schools and teachers in improving students' reading achievement (Pressley et al., 1998; 2001; Taylor et al., 1999; 2000; Wharton-McDonald et al., 1998), some commonly observed practices included: a) use of various grouping strategies, b) coaching and/or scaffolding students' learning, c) balanced instruction consisting of explicit instruction and authentic reading opportunities, and d) class discussions encouraging higher-level responses to text. According to Taylor et al. (1999), it was the time spent in small-group reading instruction that distinguished the more effective schools from the least effective schools.

Thus, existing research supports the critical importance of differentiating reading instruction (Juel & Minden-Cupp, 2000; Tomlinson, 1995; Duke et al., 2011), and observational studies suggest there is evidence of effective teachers tailoring instruction for their diverse learners to promote reading achievement (Pressley et al., 1998; Taylor et al., 1999; 2000; Wharton-McDonald et al., 1998). Still, not enough is known about how effective teachers make decisions to differentiate instruction within the same reading curriculum for their students' diverse needs. That is, what do exemplary teachers use to guide their decision-making when tailoring reading instruction for their students? Even less is known about this phenomenon in upper elementary school

classrooms (Connor, Morrison, & Katch, 2004; Connor, Morrison, & Petrella, 2004; Connor et al., 2009; 2011).

Pressley (2006) states that by researching excellent literacy teachers we can "discover how to transform many more classrooms and schools into effective literacy education environments" (p. 7). Therefore, the purpose of this study was to gain insight into how exemplary fourth- and fifth-grade teachers differentiate reading instruction to meet the learning needs of students. The study complements Connor's important work on differentiation in primary grades; however it does not rely on Connor's (2009) model (i.e., Individualizing Student Instruction [ISI]) that uses Assessment to Instruction (A2i) software and complex algorithms to compute the type and amount of differentiated instruction needed for each child in the classroom. Instead, in this study, a grounded theory methodology is used to propose a theory about what factors exemplary upper-elementary teachers' consider when differentiating their reading instruction as well as the actual nature of their differentiated instruction.

Studying exemplary teachers' decision making is of considerable importance because teacher decision making strongly influences the reading practices, methods and materials employed, and these decisions greatly impact student learning (Shavelson & Stern, 1981; Solic, 2011; Stern & Shavelson, 1983). Insights from this study will illuminate the decisions and actions of exemplary teachers to improve students' reading outcomes, uncovering possible reasons behind their "thoughtfully eclectic" (Duffy & Hoffman, 1999) ways of obtaining success with students, and thereby helps to fill a gap in classroom reading research.

In order to fill the significant gap, this study focuses on how exemplary upper-elementary school teachers of reading make decisions when differentiating instruction within the core reading curriculum for diverse readers who have varying needs, interests, and strengths. The following research questions were explored: 1) What is the nature of differentiated reading instruction in exemplary fourth- and fifth-grade reading teachers' classrooms? 2) What factors do exemplary upper-elementary school reading teachers consider when making decisions about differentiating reading instruction? Following a review of the literature related to teacher instructional decision-making in general and in reading, specifically, and a description of the methodology, the model of differentiated reading instruction is discussed.

Instructional Decision Making

Teachers play a significant role in deciding how to differentiate instruction for the variety of learners they teach (Connor, Morrison, & Katch, 2004; Connor, Morrison, & Petrella, 2004; Connor et al., 2011; Juel & Minden-Cupp, 2000; Jones, Yssel, & Grant, 2012; Tobin & McInnes, 2008). Shavelson (1973) stated that the act of teacher decision-making is the basic skill of teaching. In fact, Jackson (1968) noted that teachers participate in around 200 or 300 decisions every hour; Stern and Shavelson (1983) reported it to be at least 10 decisions every hour, whereas Clark and Peterson (1984) stated that teachers make at least one decision every two minutes, specifically while teaching students, resulting in approximately 30 decisions every hour. According to Jackson (1968), these decisions can occur in three different phases: 1) preactive decisions occur in the "empty classroom" while planning instruction; 2) interactive decisions occur "in flight" (McNair, 1982) while teachers are on their feet in the "full classroom" (Duffy, 1982); and 3) postactive decisions occur when reflecting on and

evaluating the lesson's effectiveness. Although differences exist in studies concerning the number of decisions teachers engage in, what we do know is teachers are continually thinking about, planning for, reflecting on and responding to various classroom stimuli (Doyle, 1977).

Decision Making Studies in General

Based on Jackson's findings regarding the three decision-making phases, research on teacher decision-making flourished. From 1977 to 1986, several reviews of research on instructional decisions were conducted, each with their own perspective for examining teacher decision-making (Clark & Yinger, 1977; Clark & Peterson, 1984; Duffy, 1981; 1982b; Duffy & Ball, 1983; 1986; Shavelson & Stern, 1981; Stern & Shavelson, 1983). Yet, according to Shavelson and Stern's review of literature (1981), most research on teachers' thought processes was and continues to be undergirded by two basic assumptions. The first assumption is that teachers are professionals who behave rationally in their complex teaching environment. As rational decision-makers, teachers process large amounts of information about their students, the subject matter, and classroom and school environment and formulate a set of alternative hypotheses from which to choose to guide further action (Clark & Yinger, 1977; Kleven, 1991; Peterson & Clark, 1978; Shavelson, 1973; Shulman & Elstein, 1975). It, therefore, assumes a theory-driven approach to decision-making.

However, Shavelson and Stern further explain that the first assumption references the intentions of teachers and not their actual behaviors. Two reasons are provided to support their statement: 1) the immediacy of teaching situations may preclude teachers from making rational and reflective decisions, and 2) compared to some "ideal", rational model, teachers' information-processing and problem-solving

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capacity is limited because of the complex, teaching environment they must navigate.

The researchers suggest that for teachers to work efficiently in the reality of their

complex situation, they behave "reasonably" by constructing simplified models of what

is actually occurring. The second assumption is that teachers' behaviors are guided by

their judgments and decisions; yet, not enough is known about how thoughts become

teacher actions.

Since Shavelson and Stern's review, several researchers claim that teachers are

not theory-driven and reflective decision-makers, but rather technical managers of

instructional materials and activities (Duffy, 1981; 1982a; 1982b; Duffy & Ball, 1983;

1986). As technicians, Duffy argues that teachers reduce the cognitive load by

simplifying the teaching environment and pushing theory into the background so they

can more easily "fight off the alligators" to keep the activities and routines running

smoothly:

> The mental life of teachers has been revealed as a crowded, hectic place
> in which multiple demands compete for attention in a maze of conflicting
> complexities…the pressures of dealing daily with 25-30 youngsters forces
> teachers to think about (and to make decisions about) activity flow,
> management and monitoring, leaving little time to think about developing
> curriculum, supplementing textbooks, planning integrated activities,
> striving for elusive goals, spontaneously generating diagnostically-
> appropriate instructional cues, and so on. (Duffy, 1982b, p. 360)

It is therefore not surprising that Duffy and McIntyre (1980) found teachers view their job

as coordinating, pacing, regulating and overseeing student progress.

Research concerning teachers' decisions when planning instruction also

supports Duffy's claims about the importance teachers place on maintaining a smooth

flow of instruction. In 1980, McCutcheon found that teachers in grades K-6 did not follow

an objective-oriented, or rational approach to the planning process; nor did the teachers

weigh alternatives. Instead, teachers went with their first idea, which was activity-oriented. Eisner (1967) believes this is the case, because education objectives are not "psychologically efficient" when implementing instruction.

Although teachers may not think about and weigh the pros and cons of choosing from several alternative routes, does not render them ineffective (Duffy & Ball, 1986). According to Duffy and Ball (1986), teachers, even effective ones, serve as technicians or managers of their instructional environment. However, expert teachers also lend credence to the rational model as they tend to be more goal-oriented in their instruction throughout the year, planning instruction based on their conceptions of learning, content, pedagogy, management and student behavior (Putnam, 1984; Westerman, 1991).

While teaching they also respond to student errors, redirect student responses to a task, select alternative ways to model the concept, change the lesson itself, and give different instructional examples to ensure effective delivery and student understanding (Putnam, 1984; Putnam & Duffy, 1984). Duffy and Ball (1983) refer to these substantive and flexible responses as "pedagogical maneuvering" (p. 15), and additional studies (Fogarty, Wang & Creek, 1983; Livingston & Borko, 1990) attribute these decisions to expert teachers' highly developed and complex content and pedagogical knowledge structures. Although we cannot link teacher decision making to effective teaching (Duffy & Ball, 1983), these findings bear reason to believe that student outcomes will be higher in classrooms with teachers who are experts in their field.

Decision-Making Studies in Reading Instruction

Among researchers seeking to understand teachers' thoughts during reading instruction, the major areas of teacher decision-making research demonstrate that

decisions are impacted by multiple contextual elements. First, information about the student drives teachers' decisions, especially in regards to forming reading groups (Borko et al., 1981; Buike, 1980; Englert & Semmel, 1983; Hoffman, 1979; Hoover, 1985; Howard, 1988; McNair, 1978). Rather than focusing on each student in the class, teachers can reduce the complexity of teaching reading by diagnosing the general needs of the group as a unit (Buike, 1980). Therefore, grouping is generally organized homogenously and instruction varies widely from group to group (Borko et al., 1981; Buike, 1980). According to Borko and colleagues (1981), teachers' decisions for forming groups are predominantly determined by the teacher's perception of each student's academic competence, but also vary by certain student attributes: sex, participation in class and problematic behavior.

Secondly, teachers' decisions, especially expert and experienced teachers of reading (Howard, 1988; Putnam, 1984; Putnam & Duffy, 1984), are greatly impacted by their beliefs about reading and learning as well as their knowledge of reading (Bawden, Buike, & Duffy, 1979; Bentley, 2007; Davis & Wilson, 1999; Friesen & Butera, 2012; Howard, 1988; Ibanez & Ocampo, 2011; Kinzer, 1988; Rupley & Logan, 1985). Considering expert teachers of reading, who are typically classified as experts based on years of teaching experience (Palmer et al., 2005), it makes sense that their beliefs, formed after years of trial and error, have been found to strongly impact their decisions (Fogarty et al., 1983; Livingston & Borko, 1990; Peterson, & Comeaux, 1984). While a teacher's conception of reading is reflected in their reading practices, Bawden and colleagues (1979) found that it tends to be fluid, changing over time, within various contexts (e.g., grade level and students) and interacting with non-reading conceptions

(e.g., teacher-pupil respect, classroom management and routine, assistance needed for different levels of learners, etc.), which sometimes dominate over their reading conceptions.

In regards to teachers reading knowledge, Piasta, Connor, Fishman and Morrison (2009) found a positive relationship between the interaction of reading knowledge with explicit decoding instruction and students' reading gains. In another study, Kucan, Hapgood, and Palincsar (2011) found that a lack of reading comprehension knowledge can also greatly impede text analysis for use in text-based discussions with students as well as how teachers respond to and support students' understanding. Thus, having a robust and comprehensive knowledge base is key to increasing the effectiveness of reading instruction.

Policy initiatives particularly focusing on testing and reading programs (e.g., basals textbooks) also highly influence what teachers choose to do in the classroom (Ciminelli, 2010; Hoover, 1985; Mendoza, 2011; Norman, 2008). While researchers have noted teachers' appreciation for the united focus on instruction and test scores for planning (Schulz, 2005), as well as the basal's instructional suggestions for meeting state standards (Bentley, 2007), there are far more negative consequences.

Researchers have found that mandated reading programs (e.g., phonics programs) constrain, overwhelm or limit teachers from making the best instructional decisions to improve students reading (Ciminelli, 2010; Duffy & McIntyre, 1980). Although teachers are aware of the inadequacy of the basal reading materials (Russavage et al., 1985), basals tend to govern teachers' instructional decisions (Duffy & McIntyre, 1980; Duffy, Roehler & Putnam, 1987; Roehler, Duffy et al., 1986). Policy

regarding high-stakes testing and accountability also negatively impacts teachers'

decisions. The larger need of passing the test can interfere with teachers providing

instruction specific to each student's needs and pushing off the responsibility to the

special education teachers to educate the least proficient readers (Norman, 2008; White

et al., 2002). Overall, the studies demonstrate that despite experience level, high-stakes

testing impacts all teachers' decisions to some degree (Davis & Wilson, 1999).

And, finally, decisions are influenced by the professional learning opportunities

teachers are provided, beginning first with teacher preparation programs (Maloch et al.,

2003; Shefelbine & Hollingsworth, 1987; Wedman & Robinson, 1998) and continuing

into their teaching career (Correnti, 2007; Gersten et al., 2010; Sailors & Price, 2010;

Solic, 2011). In the preservice programs, it appears that mastery of some instructional

procedures can be learned in the context of undergraduate coursework (e.g., basic

routines) and others (e.g., more complex decision-making) need real, authentic practice

with students (Shefelbine & Hollingsworth, 1987; Wedman & Robinson, 1998); or,

perhaps, it is the quality of the teacher preparation program, such as a strong reading

focus in all coursework to include the content areas and at least 150 hours of field

experience, that impacts preservice teachers' reading decisions (Maloch et al., 2003).

Common among the in-service teacher studies is the importance of providing teachers

with enough time to practice the learned strategies and skills in their classroom with

ongoing support through guidance, feedback and collaborative learning structures with

colleagues (Desimone, 2009; Penuel, Fishman, Yamaguchi, & Gallagher 2007). Lastly,

the principal's support also influences teachers' decisions to implement learned

strategies and skills (Bentley, 2007; Concannon-Gibney & Murphy, 2012; Gersten et al.,

2010). When these elements are in place, teachers' instructional decisions will likely include implementing the new reading practices and models for instruction.

Despite the scholarship on differentiated instruction and instructional decision-making, there are few studies revealing teachers' decisions about differentiating reading instruction. Even less is known about how exemplary, upper-elementary teachers of reading differentiate instruction. Moreover, of the studies conducted, typically one standard of teaching effectiveness was considered for choosing expert teachers: reputation, National Board Certification, student achievement, years of teaching experience, or administration evaluation or recommendation. In this review, only two studies relied on several criteria.

Employing different standards for teacher effectiveness when identifying teachers for a study makes it difficult for researchers to duplicate the results in a similar study (Jackson, 1968). Palmer et al. (2005) suggest adopting the following markers when identifying expert teachers: 1) a minimum of three years of teaching experience in a specific content domain and instructional context for which the teacher is considered an expert; 2) nomination by at least two constituencies who recognize the teachers' extraordinary teaching skills; 3) documented impact on student learning, and 4) appropriate certification and degrees for the domain in which they teach. In the study reported on here, these were used to select exemplary upper-elementary teachers of reading in one Florida school district.

Theoretical Framework

This study used a constructivist approach to grounded theory methodology (Charmaz, 2006) involving the constant-comparison of data to generate a conceptually dense, abstract and situationally-based theory on differentiated reading instruction.

Situated in the constructivist paradigm with underpinnings in symbolic interactionism, reality or 'truth' is constructed during exchanges or interactions with the outside world (Crotty, 1998). Knowledge, therefore, does not exist independently of others. Rather it exists in the knower (Schwantz, 1997); is dependent upon the social realities of our world; is communicated through shared 'symbols', such as language (Crotty, 1998); and can be "local, relative, historically based, situational, and contextual" (Puddephatt, 2006, p. 9). Ultimately, meaning making is contextualized, continually in flux, and thus contingent upon where we are, what we are doing, and whom we are with. In turn, there are countless constructions of reality, many which are shared through various cultural activities and events (Guba & Lincoln, 1994; Kendall, 1999).

Approaching the grounded theory study in this manner allows the teachers to discuss their understanding of differentiated reading instruction from diverse perspectives developed during past, present and current interactions with colleagues, administration, students, teaching materials, and classroom resources. Subsequently, the researcher uses his/her beliefs, perceptions and assumptions to interpret and understand the participants constructed realities (Denzin & Lincoln, 2005; Mruck & Mey, 2007). This occurs when the researcher enters "the defining process" (Bogdan & Biklen, 2007) – in this case, while the teachers are interviewed and observed during their instructional teaching time. It is important to note that the teachers' personal explanations are not "truth" but rather provide one lens for understanding the phenomenon under study (Flick, 2009). As such, the findings are not generalizable to other situations, but rather are specific to the context in which the data are collected and

analyzed. The outcome of this process is a possible explanation (theory) illuminating the teachers' lived experience of differentiating reading instruction.

Methods

Participants

To obtain cases relevant to the study (Flick, 2009; Morse, 2007), the district-level language arts coordinator nominated outstanding upper-elementary teachers according to the criteria delineated by Palmer and colleagues (2005). Teacher nomination was later confirmed through principal recommendation in regards to the teachers' effectiveness at differentiating reading instruction for students on all levels of the reading continuum (e.g., more advanced readers to struggling readers).

Four exemplary female teachers from two schools fulfilled the requirements and provided consent to participate. The study took place in Lisa's fifth-grade and Devon's fourth-grade classroom at Otter Elementary School. Lisa team-taught where she only provided Language Arts and Social Studies instruction to her class and a colleagues' students. Devon taught all subject areas and had looped with her fourth-grade class. Two Manatee Elementary School classroom teachers also participated in the study: Sarah, a fifth-grade, departmentalized Language Arts teacher only and Anna, a fourth-grade teacher of all subject areas. Pseudonyms were assigned to protect the identities of the teachers (Flick, 2009) who averaged 20 years of teaching experience in various schools with diverse student populations. Otter Elementary School and Manatee Elementary School were high-performing schools located in a mid-sized district in northeast Florida. Although Otter served a diverse student population, the school predominantly educated children from more affluent families whereas Manatee, a Title 1

school, received federal funding and thus served a more economically and ethnically diverse population of students.

Data Collection and Analysis

In a grounded theory study, data are concurrently collected, coded, and analyzed for the purpose of building an emerging theory and ensuring a close match with the data until a point of saturation is reached and no further insights are apparent (Charmaz, 2006; Glaser & Strauss, 1967). Constant-comparative analysis assisted in theorizing the three teachers' "constructions of reality" grounded in the data by "reaching up to construct abstractions and simultaneously reaching down to tie these abstractions to data" (Charmaz, 2006, p. 181). This was accomplished through an action-oriented coding process (i.e., open, focused, and theoretical) and enhanced through memoing (Charmaz, 2006; Lampert, 2007) and situational mapping or diagramming (Clarke, 2003; 2005). Memoing evoked the emergence of new insights and ideas and raised categories to conceptual and abstract levels, whereas diagramming helped to clarify the relationships among and between the categories through a visual representation. As a result, a conceptually rich and abstract theory was created to explain the actions, decisions, judgments and thoughts of exemplary fourth- and fifth-grade teachers when differentiating reading instruction.

This action-oriented, constructive process occurred during the 2012-2013 school year and included four audio-recorded interviews and three observations in the form of field notes during the first three weeks of May (Appendix C and D for the interview guides). Observations occurred for the duration of the language arts block starting after the initial interview in May. Because the two fifth-grade teachers taught more than one class of students, only the most diverse class was observed for this study. A passive

role was assumed during classroom observations by avoiding eye contact with students and recording field notes on a laptop computer. The observations acted as a guide to structure future interviews for the purpose of elaborating and refining theory construction. Therefore, the purpose of the last three interviews was to use the recorded field notes and information from previous interviews to ask more pointed questions, which took place immediately following each observation.

Coding.

The four initial teacher interviews were transcribed and each line containing meaningful units in the transcription segments of data were openly coded using gerunds. Through constant comparative methods (Glaser & Strauss, 1967), analytic distinctions were generated by comparing the initial codes to further develop a better understanding of the data. These comparisons lead to the next phase in coding: focused coding. According to Charmaz (2006), these codes "are more directed, selective, and conceptual" than the initial coding phase, and allow one to "synthesize and explain larger segments of data" by organizing the open codes into categories (p. 57). Theoretical codes, the last coding phase, are integrative; they account for the relationships among and between the categories created during focused coding. According to Charmaz (2006), these codes move the analytic framework into a theoretical direction by pulling the story together. Concept mapping, or diagraming (Clarke, 2003; 2005) assisted the construction of my theoretical codes by providing a visual representation to "tease out" relationships that did not exist and further refine and clarify the strengths and weaknesses between and among the categories and subcategories constructed during focused coding (Charmaz, 2006). By moving back and forth between focused and theoretical codes through use of diagramming and my

interpretive renderings of the links recorded as memos, a theory was constructed and grounded in the data to symbolize the teachers' constructed realities.

Furthermore, the set of criteria outlined by Charmaz (2006) further enhanced the trustworthiness of my study: credibility, originality, resonance and usefulness. Credibility was met through use of multiple classroom observations of each teacher as well as member-checks with the participants. Given the fact that there exists no study investigating the decision-making processes of exemplary upper-elementary school teachers when differentiating reading instruction to meet students' literacy needs, my study will offer new ideas and understandings to extend reading research. Resonance was met through purposeful selection of the participants, methods of data collection and analysis, and usefulness through the dissemination of the findings to key stakeholders in education: reading teacher educators, reading education researchers, and district and school administration personnel.

Findings

In order to illuminate the nature of their differentiated instruction and the factors the teachers considered when making decisions to differentiate reading instruction, each teacher is introduced using data obtained during observations and interviews and then the theoretical model (Figure 4-1) that represents the teachers collectively is explained. While the model is a general depiction of differentiated instruction and the factors influencing decision-making, it is important to note that there were indeed differences among the teachers. In particular, they relied more heavily on some factors than others, and the particular differentiated practices varied. The model represents a synthesis of the four exemplary teachers' portraits as reading instructional decision makers.

Devon (fourth-grade teacher): "Any of them who are lacking confidence and never trust themselves, those are the first ones I go after, not as a predator, but to make sure that you are going to be supported and you can fail as much as you want, but you will learn and to have them gain a voice by December."

Devon seeks to bring out each individual voice in her classroom by helping students read, write and articulate their thoughts. Her reading instruction is different every day and sensitive to her students' individual needs, not only academically, but emotionally and socially. She wants her students to feel psychologically safe, loved, cared for and supported.

Devon's students quietly take their seats on the carpeted area in front of her wooden rocking chair as she reads aloud *Maniac Magee* (Spinelli, 1990). Stopping intermittently to initiate conversation, Devon is consciously observing who is speaking and who is not and listening intently to what each child is saying in relation to the text. She provides support if students struggle when answering the questions. For the next 45-60 minutes, Devon meets with her "moderate" group of readers in her office while the remainder of the class either reads, writes in their journal, practices their individual poetry recitations, looks up interesting words from the book Devon read during the story time, or completes other reading assignments. An awareness of each student's understanding and confidence levels causes her to ask certain children particular kinds of questions during small group reading instruction. Knowing Lena is shy and often won't participate in conversations unless asked, Devon wants her to learn to articulate her perspective. Therefore, she asks Lena a very open-ended question to encourage her involvement. Noticing Lena's difficulties when responding, Devon scoots closer, provides another prompt, reassures her that she is on the right track and asks for more

details. Devon proceeds to open the discussion up to the group, providing questions

and other supports when she perceives her help is needed.

Lisa (fifth-grade teacher): "A lot of it [instruction] is individualized with Reader's Workshop. They all read books on their own levels and I could be conferencing during that time. Their literature circle book I try to keep one hair above their reading level because they do have support."

Lisa utilizes a Readers Workshop framework to support her efforts to differentiate

reading instruction. During independent reading time, students either read books

independently on their reading level or are grouped with other students on similar levels

for literature circle meetings. While they meet, she intently monitors their discussions

and is available for questions from students reading independently.

After reviewing three vocabulary words, Lisa sits in the corner of the classroom

and reads aloud the book entitled *Freak the Mighty* (Philbrick, 2001). Open discussion

follows the reading, and then Lisa reminds her students that for the next 45 minutes the

literature circle group will meet in the office while the remainder of them read

independently. Lisa proceeds to the back of the room, clipboard in hand, to closely

monitor, evaluate and assist the literature circle group discussion. While observing, she

notices that Tatiana, although not fulfilling all requirements of her literature circle role,

Word Wizard, made significant progress from when she previously had the role. Lisa

praises her efforts and encourages her to write the page numbers next to each word

she found to be of significance so she can easily show the rest of the class where the

word is found in the story. Students reading independently steal her attention to answer

questions about their chosen book. Depending on the student, she asks or provides

different questions and feedback to scaffold their understanding. For instance, her

poorest readers need more supportive questioning using the context clues and the root

words when identifying unknown words whereas she is typically clarifying or confirming her more proficient readers' speculation of unknown words is correct. After 10 minutes, she leaves the literature circle discussion and pulls aside a student to discuss his reading goals for the next nine weeks by reviewing with him his district level assessment outcomes. The period ends with students writing in their reflection journals about something they read or learned today and sharing their entries with the class.

Anna (fourth-grade teacher): "They're doing their book clubs on their level or literacy stations; maybe doing a word study activity, or they may be working on their actual book club activity. I will be taking small groups, or I'll be doing conferences during their quiet reading time."

Anna, a firm believer in small group work, finds that literacy centers, book clubs and focused small group sessions are effective structures for meeting her students' various literacy needs. Providing multiple activities at various levels of difficulty allows her students to choose which learning opportunity would be most appropriate for enhancing their reading achievement.

Shortly after providing whole-group instruction using word-building games, Anna's students gather items needed for the 40 minutes of independent or small group work time. She reminds the students that they are not to be a part of the word-building station, listening station or research station until their book club project is complete. Then, she quietly pulls aside her least proficient readers and engages them in the explicit teaching of reference skills and multiple-meaning words. After getting them to a point where they could work independently on the skills taught, she strategically walks around the room to check in with each station to ensure students are understanding. At the listening station, she questions the students' understanding of the leveled book; at the word building station, she observes the activity completed by each of the four

children; at the computers, she monitors students' book club project and confirms

completion and success on the Accelerated Reader quiz; and finally, at the research

station, she watches her gifted students work together on a group project. She circles

back to her lowest performing students to determine if more assistance is needed.

Finding them to be successful, she calls one student to a table to discuss his current

assessment data in order to set new reading goals.

Sarah (fifth-grade teacher): "Most of what I do is with individuals or pairs versus groups and I think that's what makes the difference. It's short meetings with the kids, just one or two minutes so that way you hit every child once or twice a week and then longer periods of time when a child is way behind."

Sarah believes individualized instruction through one-on-one conferencing is the

best approach to meet each of her students' needs, and therefore put structures in

place to enable this highly focused instruction to occur. By devoting a large portion of

her reading block to silent, independent reading, she is able to meet with multiple

students a day to boost their reading growth.

After 20 minutes of vocabulary instruction, Sarah's students sit in front of her

rocking chair where she reviews the learning goals for the week and asks students to

write and share their own plan of action to meet the goals. The day's goal is to learn

how to predict deeply. She models the strategy using the book *Meet the Pain*,

encourages students to practice with the person next to them, and carefully watches to

ensure all understand and can use the strategy. Students then proceed to read an

appropriately leveled book during independent reading time. Sarah reviews her

calendar and notebook and decides to meet with her lowest performing student.

Knowing Connor has poor fluency skills, which interfere with his understanding, she

softly speaks to him about his learning goals and the progress he has made over the

past few weeks. Then she models fluent reading and has Connor follow her lead. Next, he practices using the new prediction strategy in the books from his leveled box set as Sarah prompts and supports his efforts until he is able to do it on his own. Conferences of varying lengths continue for the remainder of students' read-to-self time where Sarah makes it a point to ensure that the children are understanding the book they are reading and using the skills and strategies taught during whole-group and personalized mini-lessons.

The vignettes provide one snapshot of what occurred in each teacher's Language Arts block, while highlighting differentiation practices specific to their classroom. Although differences existed, there were commonalities in the factors that influenced their decisions for carrying out certain instructional practices. Therefore, it is important to ask, "What factors actually shape their practices and choices to use one type of practice over another when tailoring reading instruction?" The next section elaborates on the theoretical model to further understand what drove these exemplary upper-elementary teachers' decisions to differentiate as well as the ways in which they differentiated reading for their students.

Theoretical Model

The teachers had similar thought processes when making decisions to meet their students' diverse reading needs. The theoretical model (Figure 4-1) depicts a synthesis of the components shared among the teachers in regards to the influences on and nature of their differentiated reading instruction. The model further reflects the relationships among and between individual components. Generally speaking, the key factors considered when making decisions about how to differentiate the teaching of reading included a teacher's teaching philosophy, teaching context and her analysis of

data, which in turn, impacted the nature of the content, process, and products of teachers' differentiated instruction.

As indicated by the arrow, however, a teacher's teaching philosophy was influenced by certain elements within her teaching context, and those factors together impacted the types of assessments a teacher personally chose or was mandated to administer. Of the three main factors, analysis of data played the largest role in that teachers gathered pertinent information about their students to inform the tailoring of their day-to-day instruction. Data – collected formally, informally and organically— informed the teachers about students' interests, reading levels, reading skill knowledge, academic reading identities, background knowledge, and learning preferences. The nature of their instruction was then a result of the decisions teachers made concerning the data gathered. In essence, the teachers' instruction was fluid and dependent upon their ongoing analysis of data, which was impacted by teaching philosophy and teaching context. A discussion of the factors, their relationships with one another, and their influence on the nature of teachers' differentiated reading instruction will be presented.

Factor 1: Teaching philosophy

A teacher's teaching philosophy consisted of her long-term goals for her students upon exiting the current grade level and her beliefs about teaching and learning, which assisted her to achieve her goals. These goals and beliefs were actualized in the everyday tailoring of instruction by carrying out practices that aligned with their philosophy. Its location in the figure indicates that it is one of the initial components considered by teachers prior to differentiating instruction for their students. While differences existed among the teachers' goals and beliefs, there were also many similarities. It is also interesting to note that when the exemplary teachers talked about

their philosophies, differentiation was not mentioned; their goals were meant for all students, despite their differences. As competent teachers, they did what was necessary to help their students achieve their goals, differentiating instruction from one student to the next.

Teaching goals. Generally speaking, the exemplary teachers' goals were to instill a love of reading and equip students with the knowledge and skills to be successful in future grade levels and life beyond school. Sarah and Lisa's goals were specific to reading. Sarah wanted to prevent her students from becoming a dropout statistic "because it's [reading] just so hard." Therefore, she worked hard to improve her students' reading skills as much as possible so they could leave her classroom able to access any text in later grade levels. Lisa's goal was also to prepare students for the upcoming grade level and to instill a love of reading: "if they leave me loving reading, I feel successful." She wanted children to go "gangbusters" over reading because "it makes all the other reading, even the reading for information much more enjoyable and fun." The other two teachers' missions extended beyond a focus on reading, specifically.

Serving as the "moral fiber" in children's lives and replicating many of the same parenting goals she stood behind when raising her own children, Devon's mission was to be a good role model and inspire her students to live amazing and "uncommon lives" by giving graciously to others and always striving for their dreams. She saw it as her duty to be a disciplinarian where she was as "serious as a cat," but more importantly, she ensured each child was safe and comfortable, loved unconditionally, and given an abundance of knowledge. Personally experiencing a lot of boredom while attending

school, Anna's mission was to ensure her students "had fun and enjoyed school." She wanted them to see school as a "happy place" that resonated with a "Mary Poppins teaspoonful of sugar thing." When her students complained about leaving school and chose to have a "Readapaloosa" as a reward for meeting class goals, Anna received affirmation that her mission was accomplished.

Beliefs about teaching and learning. Teachers' beliefs about teaching and learning assisted in accomplishing their goals. The teachers shared the belief that it was not only important to hold students accountable for their learning, but that students actually *want* to be held responsible because of the feeling they get from doing things on their own. Devon remarked, "So if you did this on your own, all eyes are on you. You can see it; it all comes right up from them. My God, it comes out of their teeth! They feel so good." Therefore, reading successes were celebrated and failures were looked upon as a chance to grow. To increase student responsibility in reading performance and growth, Anna, Sarah and Lisa believed it was important to provide students with their data from formal and informal assessments organized in notebooks. Devon chose not to engage students in scheduled formal discussions about their achievement. Instead, she believed "in-the-moment" conversations with students were effective for highlighting improvements and holding them accountable to areas needing improvement. Yet, building student-teacher relationships and cultivating a safe learning environment through tight classroom management was believed to be key to each teacher's success in holding students accountable. Sally remarked, "I have a real good rapport with the kids, you know, building on trust and expectations. I am not a yeller."

The teachers also believed in the importance of investing in their own learning and professional growth. Motivated to seek out professional literature to impact their instruction, the teachers looked to experts in the field or distant colleagues who had proven to be successful educators (e.g., Marva Collins). For example, the framework and structure of Sarah's differentiation had been greatly impacted by *The Daily 5*, a book published in 2006 that advocates increasing students' stamina to read independently by providing mini-lessons followed with "read to self" time and one-on-one teacher conferencing.

Another shared belief was that students do their best learning through the use of authentic literature. Books were selected on students' reading levels in Lisa, Anna and Sarah's classroom. Lisa also believed knowing children's books was an important part of ensuring students selected the most appropriate book. Reading authentic literature was especially important for Sarah as she believed the reading instruction for her most "fragile learners" was fragmented between the general education and pull-out programs, and as a result, these students did not "get that time to read and apply the skills." Devon didn't assign texts according to "supposed reading levels" but rather scattered books in the room to allow for more student curiosity: "like a little lost egg with a dollar in it, they find them."

Anna and Devon believed it was just as important that children's education include developing their character as human beings. Devon stated, "As a class, look at them independently as each little human, then figure out a way to bring them in and start teaching and never stop educating them from the way they sit up, the way they open a door, the way they stand for a woman, the way they hold their posture, the way

they hold their pencil. Everything is on target for a lesson." As the two teachers who taught all of the subject areas, they also believed in the importance of integrating the content areas with reading instruction.

Lastly, Lisa strongly believed in the explicit teaching of reading strategies. She trusted that if students "have the reading strategies, the reading skills will come." Also, because preparation for sixth grade included passing a standardized test, she saw test preparation as an "evil necessity" to provide her students with multiple opportunities to practice their test-taking skills. Anna, on the other hand, was focused on helping her students overcome any apathetic feelings toward reading, which she believed was "half the battle" of teaching. Rather than including a lot of test prep, she regularly incorporated the use of engaging games, group activities, and book projects to get and keep students interested in reading.

Factor 2: Teaching context

When the teachers talked about their teaching context, they referred to the contexts within and outside of their schools in the past and present. External forces outside the school included national, state or district policy mandates as well as university training. Forces within the school environment included everything else that could potentially influence their reading instruction (e.g., principal initiatives, colleagues, professional development opportunities, teaching interns, students).

Contextual factors within and outside of school played a significant role in teachers' beliefs about teaching and learning over the years. In turn, the experiences also informed their over-arching goals as educators. However, the external and internal forces differentially impacted teachers' reading instruction. Classroom reading practices were influenced more by internal school forces, whereas external forces served as

guidelines, goals or structures for instruction. When within school influences impacted

student learning, the teachers' use of and belief in the practice was reinforced. For

example, Sarah believed in the importance of providing one-on-one instruction for

meeting her students' needs after participating in a book study of *The Daily Five.*

Conducting daily conferences with students, as promoted in the book, dramatically

increased all of her students' reading proficiencies:

> I really started to see huge improvements with all groups – the middle, the
> low, and the high. Typically you find something that works with the low or
> something that works with the middle, or something that works with the
> high, but it [*The Daily Five* structure] works with all students.

External forces. Across the board, state and national standards informed

exemplary teachers' choices for teaching reading by providing long-term goals for their

reading instruction. In addition to the standards, Lisa referenced the scope and

sequence of the basal, and the district curriculum map further guided Anna and Sarah's

instructional decisions each semester. The state policy mandating 90-minutes of daily,

uninterrupted reading instruction also influenced the amount of time they allotted to the

teaching of reading: "Florida has a mandate for ninety minutes of language arts

instruction in elementary school so all my rotations are ninety minutes; that's fitting in

the guidelines" (Sarah).

Response to Intervention (RtI) was national policy that greatly influenced the

structures and time requirements in which Sarah and Anna delivered targeted

instruction for their students' needs: "For thirty minutes everyday, you are doing

targeted instruction based on ThinkLink scores, STAR reading, teacher data – your

basic teacher assessments" (Anna). RtI also influenced the actual instruction utilized for

students in tiers II and III; practices the teachers found to be ineffective for reading

growth: "I find it very frustrating with the materials that are given to us to use. I feel like, they say they are based on research, but they are worksheet driven; they are workbook driven; they are boring to teaching; they are boring to listen to; the children don't like them. I don't feel it get the gains or the growth that we are hoping to get if we met with them every single day for 30 minutes using the practices we know work" (Anna). In regards to training outside the school setting, Anna attributed her knowledge about differentiated instruction to her preparation as a teacher of gifted and talented students at a local university.

Internal forces. Influences within the school operated as the primary vehicle for building teachers' knowledge and beliefs about best practices in reading. The teachers talked extensively about their current and past colleagues and professional learning experiences. However, past learning experiences had the greatest impact on their beliefs and practices to better meet students' reading needs.

For example, a special education teacher greatly influenced what reading practices Sarah used with her struggling readers. She also spoke highly of a former principal who introduced professional learning communities (PLCs); Kagan strategies; strategies for differentiating the time, task or materials; and multiple assessments for identifying students' needs and monitoring student progress. It was his urgency to improve students' reading that "changed the tide" and led her on an "independent quest" to reflect on her successful and unsuccessful instructional practices. Professional district-wide training in the Four Blocks model (Cunningham, Hall, & Gambrell, 2002) assisted Anna's understanding of differentiating literacy centers. Calling herself the "program queen", Lisa attributed her knowledge of differentiation to previous school-

wide training programs (e.g., Project Child, Success for All) and the training she received as a school and district literacy coach in the Readers Workshop model. Her colleague's success with the Readers Workshop model led her to believe it was an effective framework for differentiating instruction.

Devon, on the other hand, spoke highly of a distant individual whose work inspired her to be a more effective teacher: Marva Collins. She also briefly mentioned her mentor teacher from over thirty years ago who challenged her to be honest with herself about the effectiveness of her teaching practices. The mentor teacher said, "I don't want you to be a twenty-two year old who doesn't tell the truth about how you teach. Parents are always going to be loving and parents are also going to be hard to please, but you're going to know if it went well or if it didn't go well, and you're also going to know if they're getting it or if they're not getting it. You don't need a report card. You don't need a test." Through reflecting and critiquing her own practices, she was able to "clean out the [teaching] closet."

Teachers' current school context appeared to serve different roles for the teachers. Although Lisa and Devon were both from Otter Elementary, only Lisa mentioned the importance of discussing particular students' needs with her team teacher: "I had problems with so and so, what are you doing that works with him?" She also talked about using her teaching intern to work with her lowest performing readers. The principal provided site-based learning opportunities; however, neither Lisa nor Devon found them particularly helpful for their reading instruction.

Sarah and Anna's experience at Manatee Elementary was different. In their school, the principal began two initiatives focused on differentiating instruction: a

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required school program (Targeted Intervention Differentiated Enrichment [TIDE]) and individual student goal sheets to hold students' accountable to their learning. TIDE was established to meet the instructional mandates within the RtI framework for the lowest quartile of students and push proficient students to achieve higher goals in reading and mathematics. Thirty minutes a day were devoted to uninterrupted, targeted and differentiated instruction where students were grouped at their grade level according to need. Sarah, as the Language Arts teacher, worked with tier two and three RtI children in grade five. Anna, given her gifted training, taught gifted children from grades three and four. However, with the use of these two new initiatives to address RtI, Sarah and Anna had been given more responsibility to determine how to carry out the differentiated instruction: "she [principal) said, here's your data; what can you do? Let's let you – the professionals – come up with a plan" (Sarah). Sarah commented that the "TIDEs laser-like focus on students who needed it most" and incorporating more formal use of student data for making instructional decisions through use of individual goal sheets was effective for increased reading proficiency:

> We started out with nine reading plans in the beginning of the year and we're down to one. Now several of them went for referrals and several of them back down to tier one instruction and are successfully meeting the curriculum at their access point and I credit that a lot to TIDE.

Overall, none of the teachers found the district-mandated professional learning opportunities to be of any value to their teaching of reading. These meetings were primarily used to disseminate information about current policy mandates and teacher evaluation tools. They preferred to use this time to collaborate, reflect and learn from and with their colleagues.

Factor 3: Analysis of data

Indicated by the size of the box and its position in the model, analysis of data played a significant role in the nature of teachers' differentiated instruction. Instructional decisions were determined through a continual gathering, analyzing and synthesizing of student information from multiple assessments throughout the year:

> The first month of school, I do a DRA on all my kids. I figure out their reading levels and do a lot of interest inventories and trial and error with books. You start seeing that pattern with each kid when you look at their book log and response book because that is their thinking. You see their reading habits. Then a mid-year DRA and end-of-the-year DRA will definitely show if they are improving. I am not huge on Thinklink testing, but it helps because I can see some kids going up on that. It does give you a little bit of the picture. When you start seeing them pick better book choices: when they can read the U's and when you hear the discussions in the literature circles. However, you still have to put it all together. Then conferencing, conferencing, conferencing and talking individually with a kid. (Lisa)

Formal, informal and organic assessments gave teachers insight into students' interests, reading levels, background knowledge, reading skill knowledge, instructional preferences and academic identity, or how students felt about themselves as students, and were a reflection of teachers' philosophies and their current school context. Teaching goals and beliefs about teaching and learning informed teachers' personal choices for acquiring student information, whereas the teaching context often dictated the administration of mandated assessments. Given the philosophical and contextual differences among teachers, their reliance on specific types of assessments and, therefore, the information they gathered on students varied. However, all of the teachers used three kinds of assessments:

- Formal assessments used a standardized measure to gauge students' reading skill knowledge and level and typically reported as a number. Examples included the district formative assessments (e.g., ThinkLink), state-approved skills tests

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(e.g., Florida Focus and Florida Achieves), and the Standardized Test for Assessment of Reading (STAR) test.

- Informal assessments also identified students' level of reading and skill knowledge, in addition to understanding of particular reading content or background knowledge using an instrument. Examples included informal reading inventories (IRI, Developmental Reading Assessment [DRA] and Burns and Roe Inventory), Accelerated Reader (AR) quizzes, informal Scholastic tests, teacher-created tests and rubrics, and interest inventories.

- Organic assessments, often in the form of "kid watching" (Goodman, 1978), included natural ways of gathering information about students' reading skills, academic identity, background knowledge, interests and reading level where the teacher served as the tool for collecting data (e.g., observing and interacting with them, reading students' thinking journals, cold reads, parental insight, principal advice).

The teachers were also interested in a variety of kinds of data that were available in the multiple kinds of assessments they used. They sought information about the following:

- Student interests: What topics did students find engaging?

- Reading level: At what level could students read a book with the teacher's help (instructional level) and on their own (independent level)?

- Reading skill knowledge: What did students' know about the discrete skills that aid them in becoming better readers (e.g., comprehension skills, reference skills, fluency skills)?

- Academic identity: How did students feel about themselves as students?

- Background knowledge: What did students' know prior to reading new content that could help them read with better fluency and comprehension?

- Instructional preferences: In what ways did students tend to learn best (e.g., small group, one-on-one, types of reading activities)?

Types and outcomes of assessment. Three teachers relied on all three forms of assessment for making decisions about their students' reading instruction; however, one teacher, Devon, solely relied on two: informal and organic. While her students were also required to take the formal district-mandated tests every nine weeks, she did not

talk about using this information for instructional purposes. Philosophical and/or contextual factors influenced the other three teachers' use of formal assessments. From these assessments they were able to gather data about students' knowledge on a variety of reading skills and/or reading levels. For instance, Sarah and Anna were required to use school-wide principal initiatives (e.g., TIDE program and individual goal sheets) where formal data were valued; yet, they chose to use the STAR test during the year to gauge students' reading levels. In contrast, Lisa's use of data from district-wide and other state-approved skills tests reflected her beliefs that test preparation was an "evil necessity."

Teachers also gathered data on students' reading skill knowledge and level using multiple types of informal and organic data sources. In fact, the data obtained from these types of assessments had more utility than the formal assessment data and were therefore used to supplement teachers' understanding of the formal information acquired. The Diagnostic Reading Assessment (DRA) and Burns and Roe Inventory, two IRIs, gave three teachers (Devon, Lisa, and Sarah) an in depth look at students' reading processes and skill knowledge, while also gauging their reading level. Lisa even continued to use the DRA mid-year and at the end-of-the-year to gauge students' reading growth. Similarly, Sarah continued the use of the Burns and Roe inventory, but only for her students who struggled the most with reading. Reading skill knowledge was also determined through weekly cold reads of a passage (Sarah and Devon), choral reading during small and large group instruction (Devon), AR comprehension quizzes (Anna), reading students' thinking journals (Lisa, Sarah, and Devon), a Scholastic test that measured students' phonics, vocabulary and comprehension skills (Sarah) and

teacher-created tests (Lisa and Devon). For example, Lisa created a rubric to evaluate the literature circle group meetings in which students were given a grade for a) completing the book, b) adequately fulfilling their role (e.g., Word Wizard, Summarizer, Discussion Director, and Connector), and c) engaging in quality discussions. Devon also created tests specific to her students' vocabulary needs.

Additional information the teachers found to be of value for differentiating reading instruction was also obtained informally and organically: background knowledge, academic identity, instructional preferences and interests. Students' interests were captured in parent conversations, observing the student, and administering informal interest inventories at the beginning of the year. Students' background knowledge was determined prior to studying a particular topic by probing the students with questions following a cold read of a short passage as well as listening to children talk during classroom discussions. Instructional preferences and students' academic identities were monitored through observations of students and talking to their parents.

Devon sought advice from her students' parents daily and from her principal in January, for those students who would "sit back" despite receiving the "same medicine." From the parent and principal conversations she wanted to know how her students' felt about themselves as learners and any past school experiences and/or family circumstances (e.g., death in the family, divorce, sibling relationships) that could have contributed to those feelings. Knowing information about students' academic identities provided insight into what kind of questions to ask as well as the reading activities to ensure increased student success. The teachers believed that improving students

reading skills and knowledge would only be achieved once students felt good about themselves as scholars.

The result of obtaining information from multiple types of assessments was a more holistic picture of their students' reading proficiency so they could identify obstacles to their growth (e.g., academic identity, lack of background knowledge, disinterest in activities or topics). Hence, assessments in these forms were the most versatile for acquiring rich information about students from different perspectives whereas formal assessments provided limited student information.

The teachers utilized different structures for organizing student data: student data notebooks, personal notebooks and calendars, and student portfolios. For example Sarah made the following comment about record keeping:

> I have a calendar to make appointments so if I'm meeting with you and I notice that we've been working on the fact that you skip the ends of every word when reading out loud, I'll jot that down on your sheet in my notebook and I'll point it out to you. Then, we'll model and practice together and I'll say, "I want you to make sure you have it so I'm going to check in with you again tomorrow." So I'll make an appointment on my calendar and keep my notes on our meeting – that just keeps me straight. I know I need to go back.

Despite the important role formal and informal assessments played in teachers' differentiation decisions, organic assessments were valued the most. It was the moment-to-moment observations and conversations or "kid watching" that informed immediate instructional decisions. The exemplary teachers were constantly thinking on their feet and responding instantaneously to remedy the issue. Sarah explained, "What lets you know someone's understanding the book? You're having them read out loud to you right then and there and you ask them a few questions and they get it and they can

go back and they can show you. That to me, you know, they're understanding what they're reading." Devon had a similar message:

> My formatives are by listening and being able to see who's contributing and who's not, and then with the little prompts to the ones not listening lets me know where I need to teach again. I've got so much to do. I have to keep thinking and saying to myself, "Is her fluency increasing? Is her level of comprehension increasing? Is she able to use better vocabulary? Is this one able to pick the right types of book?"…I go by my gut. I look at a lot of body language and when their eyes are focused like a hawk and I've got so many of those, they're digging it. Watching the hair flip, uncomfortable; the back shoulder roll, uncomfortable. Is it the material? I use all those little signs to say this is difficult for them. Wiggling…if it's not a bathroom issue, uncomfortable. I listen to these keys.

Nature of differentiated reading instruction

The nature of teachers' differentiated instruction was informed by the three factors: teaching philosophy, teaching context and analysis of data. Teaching philosophy influenced the type of assessments teachers' chose to implement; teaching context influenced teachers' philosophy as well as the assessments they were mandated to administer; and analysis of the data played the most significant role in their differentiation practices. The formal, informal and organic data they collected and analyzed informed their decisions about three classroom instructional elements: 1) the content or information they would teach students, 2) the processes or learning activities they provided students, and 3) the products or ways they intended to evaluate if learning occurred.

The content was guided by one feature of the external school context in which they taught: the New Generation Sunshine State Standards (NGSSS) for the state of Florida and Common Core State Standards (CCSS) teachers were required to teach their students. Processes included the instructional practices and materials for teaching the content. Lastly, products were comprised of three different forms of student

evaluation: organic, informal and formal. Overall, there were many similarities among the four teachers when it came to differentiating content, processes and products. All content decisions were guided by the standards but were differentiated according to students' needs. The instructional practices and materials and student evaluation of the content differed by teacher and were determined by the information collected on each student.

Content. The four teachers determined the content to be taught by consulting the NGSSS and CCSS. The content of the NGSSS standards included four components of reading, and the skills and strategies subsumed within each: phonics, fluency, vocabulary and comprehension. The teachers also tried to incorporate the new CCSS, which shift from strictly focusing on these components for students to have reading success. They differentiated what to teach based on knowledge or evidence of children's skill and strategy proficiency within each component.

They differentiated the time spent on teaching each component. For example, Sarah explicitly taught fluency to only two students because the remaining students were fluent readers. They also differentiated students' spelling and vocabulary by creating lists tied to the specific needs of students. Anna had her students engage in an online website to increase her student's vocabulary: "The website is language-based and there's a vocabulary section where they can build vocabulary using a scene, which allows students to work at their own pace based on what they know." Sarah, Devon, Anna and Lisa differentiated the comprehension skills and strategies and other reading skills (e.g., referencing skills) they taught according to students' scores on formal, informal and organic assessments. Believing that reading and writing were highly

related, with writing being the ultimate test of a student's understanding of grammar, the teachers also taught various grammatical and writing components based on students' interests and needs. For example, Lisa's students were curious about ellipses in their reading so she taught them how to properly use them in their writing.

Process. Process refers to everything included in the implementation of differentiated instruction. Instructional practices and materials for carrying out instruction were therefore considered part of the process. The teachers planned for differentiated instruction primarily using formal and informal data, but also differentiated on-the-fly by remaining responsive to their organic data or observations of the students:

> I plan for the skills and what I want to teach using information from the district formative assessments. They help me think about who do I need to pull and continue further instruction. I use the STAR specifically to look at their reading levels and to gauge that. The Burns and Roe Inventory is used once at the beginning of the year and then that's it for the kids who are on track, but then the kids that are well below, they take it again several more times to compare and contrast with the last test. But, I don't necessarily know the activity we're going to do until we're there. I kind of pull out of my toolbox depending on how the conference or small group work is going with the students. For example, sometimes I'll meet having planned for a short conference time and then we get into conversations that are a little longer. (Sarah)

Instructional practices. The exemplary teachers incorporated a variety of instructional practices to ensure each student received enough scaffolding and support to increase his/her reading proficiency. For one, the teachers *employed flexible grouping patterns*. Read alouds and the introduction and reviewing of reading concepts or vocabulary words occurred during whole-group instruction. Instruction in this size group typically lasted no longer than half of the Language Arts block. Even within large group settings, teachers differentiated: "They're all talking at one time. I can hear their

voices and it's important, so they are not allowed to nod or assume" (Devon). Small-group instruction consumed the other half of the Language Arts block.

Small-groups varied in size and were fluid. Students were grouped homogeneously or heterogeneously by reading level, reading skill knowledge, interests, background knowledge or simply by student choice. Sarah preferred grouping by reading skill knowledge: "The groups change; they're skill-based instead of being a stagnant high and you're in the high group the whole time. We know there are things that you [the student] struggle with even if you're a phenomenal reader. There is usually some kind of comprehension issue, so for that particular skill you may need to be meeting with the teacher every week." Lisa grouped her students with peers who were close to the same reading level for the literature circles: "My Literature are based on levels, but I do try to put one person that is a little higher in there, your ringer in there, that can keep things going. But these groups constantly change every week because I want them to hear the voices of all their classmates." Devon did the same during her small group instruction; however, Anna conducted the most small group work of all the teachers. She incorporated book clubs based on reading level, literacy stations based on student choice, small group work based on reading skill knowledge, and heterogeneously based word building game groups. One-on-one instruction occurred formally and informally or "in the moment" in Anna, Sarah and Lisa's classroom whereas Devon only used in the moment one-on-one instruction.

Secondly, they *varied the pacing and amount of reading instruction* for students. Teachers met with lower performing readers more frequently and for longer periods of time. More advanced readers tended to be more self-sufficient and, therefore, were

provided with "check-ins" or "drive-by" conversations. Anna and Sarah met with their

poorest readers everyday for at least 20 minutes. Anna compacted her reading

instruction for her higher achieving and more motivated readers. When Devon's

"moderate" group wanted to read what the higher group read, she gave them more time

to finish the book and "chunked" their learning by assigning smaller reading sections:

"now that group does digestible bites, just a little, just a little." Lisa's students

determined their own pacing and amount of help needed when reading independently or

in literature circle groups by summoning her when they had reading difficulties or

questions. However, she often checked in with students who were reading on a lower

level.

Third, teachers *varied their questions and feedback for individuals and groups*.

This especially held true when meeting with children one-on-one during conferences or

in small-group settings. Devon, in particular, varied her questions with each student

based on his/her knowledge, past experiences, and more importantly, confidence level.

More or less scaffolding and feedback was provided based on her students' responses

to the questions. For example, she initially asked her least confidence readers more

open-ended questions rather than questions looking for specific information from the

story to build their efficacy by giving them a better opportunity to answer successfully.

Varying feedback for students during independent reading time was exemplified in

Lisa's recounting of events:

> There are some kids I can just say, "Oh, that words means…." and then
> tell them the definition and go on. There are other kids I always have to
> make sure I read the whole sentence that the word is in and guide them.
> Sometimes I'm like, "Oh, I'm going to have to read that whole paragraph
> to figure out what they're talking about," and I try to tell them my thinking. I
> know I want my lower students to hear my thinking out loud of how I figure

it out; not just throwing out the definition and walking away from them, because I want them to experience that process.

In addition, the teachers *capitalized on peer support and encouragement*. They strategically solicited the help of more motivated students to inspire less motivated students to read particular books and increase their appetite for reading. Lisa called it "good peer pressure" and provided a classroom scenario about one student helping another choose a book: "This book is challenging. It can get a little confusing because it has a lot of flashbacks. It may not be a book you may want to read right now." The students also served as cheerleaders and teacher aides when difficulties arose. For example, Anna talked about how her more proficient readers took her least proficient reader "under their wing" by offering to read with him when he became frustrated. In fact, pair reading occurred in several of the classrooms when the material was difficult. Peer support was also used for the purpose of holding students accountable for their behavior. For instance, Sarah had one student help keep another student focused during mini-lessons. Further, seats were assigned so students were next to peers they worked well with and who could challenge and help them.

The teachers also *guided students' book selections*. This was especially the case at the beginning of the year when trying to get them interested in reading. Sarah, Anna and Lisa not only helped students choose books of interest, but they also made it a point to ensure the books were appropriately matched to their assessed reading level as indicated by a number or letter; Lisa referred to this process as "a lot of trial and error." Sarah mentioned, "Each child has a card so when they're book shopping or going to the media center, they know what books to get and I'll do a check in to make sure they're reading on those levels." Devon also found it important to guide students' book

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selections based on interest; however, she did not find it advantageous to use an assigned reading level as this could restrict her students' selections and reading goals.

Three of the teachers *developed personal learning goals with their students*. Sarah, Anna and Lisa created learning goals with students based on their performance on a variety of assessments to heighten students' awareness of their achievement. As Anna stated, it set the stage for "where you're at and where you want to be." Lisa also discussed book selections with students and challenged them to read different genres, whereas Anna and Sarah had each student organize Data Notebooks that included data from district and classroom assessments. Sarah reiterated that writing goals together using student data "has made a huge difference because a lot of times they had no idea that either they were that strong in something or that they were that weak in something. It gives them ownership by making them aware of their strengths and weaknesses so they can do something about it."

Devon also *considered students' gender* and *purposefully engaged in physical cues* as two additional means of differentiating instruction. While teaching students about the Civil War, Devon included the study of influential women (e.g., Harriet Tubman), because she believed it was important for the girls in her class to see women as capable, powerful activists. She also used her body to provide cues to students to indicate that she was expecting their participation soon, to demonstrate support and comfort during difficulties or times of reduced confidence and to jumpstart better behavior. For example, she described her physical proximity in students' time of need: "I'm on top of you, which means I'm tactilely with you. I mirror you. My voice is right there. My hand is right there. You feel she's with me. She's helping me without me

targeting you by your name. I'm just closer to you." She also moved her body closer toward students to facilitate their involvement and participation in reading discussions.

It was interesting to observe that teachers established structures and routines to assist the differentiation of instructional processes. The Reading Workshop model, which included a read aloud, mini-lesson, independent reading time and open discussion, was one framework used to structure reading time. A modified version of the Four Blocks model consisting of whole-group instruction, literacy centers, and independent reading time, was another framework employed. These frameworks allowed the teachers to gather a lot of student data in a short amount of time and efficiently work with many students in a variety of group settings.

Materials. Another element of teachers' differentiated processes included the materials they chose for instruction. They used the Internet to find resources (e.g., video and songs), gather ideas for differentiation, and/or access particular programs that provided choice in creating book projects. Some teachers used particular programs but only for specific purposes. Anna found AR to be beneficial for motivating her students to read at their independent level and also employed the Success for All program with her lowest quartile of readers. Sarah only used the Read Naturally program with one student who struggled reading fluently with speed and accuracy. Lisa incorporated Wordly Wise, a vocabulary program, but modified it to better meet her students' needs. She knew her students needed multiple opportunities to learn the words and did this by limiting the number of words taught a day and incorporating multiple teaching strategies (e.g., using hand movements to physically portray the meaning, providing and asking for examples of how the word could be used, drawing pictures, and clapping out the word).

However, all of the teachers found authentic children's literature that was of high-interest, relevant, meaningful and specific to students' interests and needs to be the most important element when differentiating the teaching of reading. Yet, the teachers often commented that the lack of good books and/or continually coming up with new books to use for instruction was one challenge to differentiating. Devon stated,

> I think teachers should have a really well stocked class library that would be consistent between all the rooms in fourth grade or third grade so everyone has the same books and they're all the same title so that we are just constantly back and forth sharing and reaching children. Instead, it's fend for yourself. We're all doing the best we can with what limited resources we have…For me, all the materials have to be tried before they can be put in front of a child. I have to think, what do I really want to draw out of this piece that I'm giving them? Is it too short? Is it too babified for their age? Are they going to feel stupid if they're being asked to study and work on this piece with someone siting next to them?

Anna's comments also mirrored Devon's frustrations:

> It's [planning] take home; be home; in the bathtub thinking about what boy book can I pick this week that I can get them to choose from that they're going to love, because that one [*Hatchet*] was so hard to beat. So finding books that match students' interests to keep them enthused about reading is always a challenge, especially when you run out of books to choose from.

The books they read aloud for instructional purposes were written at a level above the students' current grade level reading expectations, and were often chosen because they a) lent themselves to teaching a certain reading strategy or skill or contained rich vocabulary, b) had good character development for increasing children's social and emotional capacity, especially for particular students in the classroom, c) were a good example of a particular genre, d) exposed students to new life situations that they may not have experienced otherwise, and e) were well-written and developmentally appropriate.

Product. Gauging student reading success was primarily accomplished through organic forms of evaluation such as observing, listening to, and talking with children in addition to reading their journals. Sarah, Anna and Lisa also employed data checks using the formal and informal results from district assessments, other test preparation assessments made available by the state, teacher-created assessments, the STAR reading test, book club projects, and/or AR quizzes. Devon, although not focused on formal goal setting with students, monitored student understanding of the content using observations and informal tests she created.

Nonetheless, and as mentioned previously, the teachers favored organic assessments for evaluating students' reading from one moment to the next. Devon asserted, "If a child offers without me prompting or probing, just to take a lead and I will listen to them read and then the child explains to the group what this book was about...that to me is a telltale sign of improvement – that confidence of 'I'm going to attack this.'"

Discussion

Two of the influential decision-making factors in this study, teaching philosophy and teaching context, are consistent with previous research. For the past thirty-five years, a number of studies have documented the influence of teachers' beliefs about teaching and learning and their teaching context on reading instruction (e.g., Bawden et al., 1979; Borko & Niles, 1982; Davis & Wilson, 1999; Doyle, 1977; Duffy & McIntyre, 1980; Fogarty et al., 1983; Howard, 1988; Jackson, 1968; Livingston & Borko, 1990; Peterson & Comeaux, 1984; Rupley & Logan, 1985). Of these studies, some have specifically investigated expert teachers of reading (e.g., Putnam & Duffy, 1983).

According to Clark and Yinger (1977), decisions and actions stem from theories about how instruction should be implemented. The exemplary teachers' theories or philosophies about reading instruction were the result of experiences from within and outside their school environment. Similar to other scholarly work, national, state and local policies (Norman, 2008; Schulz, 2005), student information (Borko et al., 1981; Buike, 1980), and past professional learning opportunities with colleagues (Solic, 2011) were some of the contextual factors found to influence teachers' decisions and practices. Additionally, the role of the principal greatly influenced what and how instructional approaches were implemented (Bentley, 2007; Concannon-Gibney & Murphy, 2012; Hoppey & McLeskey, 2010). The principal's school-wide initiatives, TIDE and individual student goal sheets, in the Title I school served as structures for differentiated instruction.

Findings also support and add to current research on the nature of differentiated instruction (Tomlinson, 1995, 2002, 2011). According to Tomlinson (1995), teachers should differentiate content, processes and products of instruction based on students' readiness level, interests, and learning profiles or students' preferred learning style. Readiness level refers to the knowledge, experience, and skills students bring to a particular learning situation, which is influenced by previous life experiences as well as their attitudes about school. The four teachers tailored reading instruction according to students' interests and learning profile, but also considered four additional elements: reading level, background knowledge, reading skill knowledge and academic identity. Although two of the elements, background knowledge and reading skill knowledge, are

subsumed within Tomlinson's definition of "readiness level", reading level and academic identity have not been identified as factors to consider in differentiation decisions.

It is important to note that Tomlinson's differentiation recommendations are not specific to the teaching of reading. Thus, the exemplary reading teachers' consideration of students' reading level in their differentiation decisions was not surprising. The role of students' academic identity in differentiation is, however, a new element for teachers and researchers to consider. The exemplary reading teachers were equally concerned about students' sense of themselves as students and their attachment to school as they were about their reading achievement. Because they believed that a positive academic identity was related to academic achievement, they considered this factor in their decisions about differentiating reading instruction.

Information teachers use to guide decision-making shed light on additional elements that need special consideration for upper-elementary school classrooms, specifically. Connor and colleagues (Connor, Morrison, & Katch, 2004; Connor, Morrison & Petrella, 2004; Connor et al., 2011) reported that differentiating reading instruction based on students' knowledge, reading skill level (i.e., vocabulary, comprehension, and word reading), and interests should determine the amount and type of instruction students' receive. However, beyond these elements, my study found that some teachers also consider students' academic identity, reading level, and their instructional preferences for learning content.

While research has found flexible grouping patterns are present in effective teachers' classrooms, especially the use of small groups (Taylor et al., 1999, 2000), new insights have been revealed about how differentiated instruction is enacted. The

exemplary teachers tailored instruction by varying the amount and pacing of instruction as well as the questions and feedback for individuals and groups. They also engaged in physical cues, solicited peer support and encouragement, considered students' gender, guided book selections, and developed personal learning goals. Establishing structures and routines was crucial for allowing these differentiated practices to occur (Connor et al., under review; Sousa & Tomlinson, 2011), and authentic literature was the material of choice.

Finally, the findings add to the growing body of evidence noting the influences on teachers' reading instruction. Research on expert teachers (Putnam, 1984; Putnam & Duffy, 1984) has documented ongoing data collection, synthesis and decision-making based on student data throughout the year. However, the types of assessments valued by exemplary teachers have been noted less frequently. The exemplary teachers utilized a variety of formal, informal and organic reading assessments. Organic forms of assessment or "kid watching" were valued the most for making decisions about adjusting instruction. The teachers listened to, observed and conversed with children throughout the day. Doing so appeared to maximize students' learning opportunities, resulting in high levels of reading achievement, as identified by formal, informal and organic forms of assessment. As a result, teachers could accomplish their goals: to instill a love of reading and equip students with the knowledge and skills to be successful in future grade levels and life beyond school.

Implications for Reading Education

In this study, exemplary teachers of reading conducted ongoing assessments of their students in order to determine the content, processes, and products of reading instruction. Their teaching philosophies and teaching contexts shaped assessment

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choice. The information gathered allowed the teachers to be responsive to and flexible in addressing the needs of their students, using authentic literature to do so. Therefore, providing instructional support systems to assist teachers of all experience levels in engaging in the differentiation process may help them be more effective teachers of reading. For instance, teachers may benefit from organizational systems or charts that would help them identify areas of need using multiple assessments. Teachers may also benefit from established school-wide structures. For example, each grade level can collaborate to identify grade-level needs and group students so that each teacher takes a group for targeted instruction daily. Developing systems and structures is important because many teachers report the challenges they face in attempting to accommodate students who struggle the most in learning to read (Baumann, Hoffman, Duffy-Hester, & Ro, 2000).

Further, teachers need professional learning opportunities to support the differentiation process where student assessment data drive teachers' instructional decisions. By collaborating with colleagues, they can learn ways to improve students' reading proficiency. Perhaps Jinkins' (2001) study can serve as a model of how to engage teachers in professional development focused on data-driven decision-making. Using an assessment-driven instructional model, teachers were taught the reading/writing processes and connections between achievement and instruction based on assessment. After twelve weeks of implementing this teaching/learning cycle, student behaviors, attitudes and writing skills improved, and seven of the nine students for whom data were collected, made at least a half year's reading growth with four of the students obtaining the equivalent of a full year's growth. This suggests that when

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teachers understand and use data to make informed instructional decisions based on the instructional cycle, students' reading growth is accelerated. Providing powerful professional learning experiences for teachers can increase students' reading achievement (Sailors & Price, 2010; Hilden & Pressley, 2007) and reinforce the use of good instructional practices for differentiation. As teachers see changes in their students' outcomes, use of effective practices will be sustained (Guskey, 2002).

Research has also shown that teachers are always in need of resources, such as materials and literature, to support classroom instruction (Boggs & Szabo, 2009; Hilden & Pressley, 2007; Lee, Hart, Cuevas, & Enders, 2004). This was also found to be the case in the four teachers' classrooms. They were unhappy with the scarcity of high quality, high interest and developmentally appropriate literature to support their differentiated reading practices. Books on a variety of levels and topics were key to their successful instruction; yet, they had limited access to them.

To alleviate this issue, schools should ensure teachers have well-stocked classroom libraries. McGill-Franzen, Allington, Yokoi and Brooks (1999) recommend teachers have at least 1000 books in their classroom library collection. Of course, continually stocking the school library with more children's books would also be beneficial for providing teachers and students with more reading options (Neuman & Celano, 2001). Knowing money is scarce within schools, perhaps teachers could write classroom mini-grants, hold school or classroom fundraisers, ask for donations from families, partner with local businesses, and/or purchase books at a reduced rate at local libraries and garage sales.

Finally, this study has implications for teacher education programs. In addition to ensuring pre-service teachers develop a comprehensive knowledge base of reading concepts and effective practices prior to entering their professional career, Fairbanks et al. (2010) recommend exploring four additional components. The components include a teacher's vision, beliefs and personal practical theories about teaching and learning, sense of belonging or "fit" within the professional community, and identity as an educator. Some of these elements were embodied within the exemplary teachers' philosophies that drove decision-making regarding assessments and reading practices. They were "unconsciously competent" at ensuring each child received what was needed to improve his/her reading proficiency. The researchers suggest that explicitly addressing these components alongside knowledge development in undergraduate coursework will support pre-service teachers in becoming more thoughtfully adaptive and responsive to students.

Implications for Future Research

This study's findings provide direction for future scholarly work in reading education. While this study was conducted in one school district in the state of Florida, there is a need to examine exemplary teachers in different schools and states. Studying other exemplary teachers using the same criteria delineated by Palmer et al. (2005) would allow for a deeper understanding of differentiated reading instruction across a variety of contexts. Information obtained from additional studies on exemplary teachers can then be used to better support novice teachers as they begin to learn how to differentiate instruction.

Researchers may also be interested in expanding the scope of this study or closely studying certain components of the theoretical model, such as teachers' analysis

of data. Exploring exemplary teachers' decision-making over the course of a year may clarify the evolution of teachers' differentiated instructional practices. Following a group or several groups of students receiving instruction tailored to their needs may enrich understandings of students' reading growth and the differentiated practices contributing to their achievement.

Researchers may want to develop a valid and reliable observation tool to capture the nature of differentiated reading instruction using the constructs discussed in the study: content, process, product and data analysis procedures. Evaluating teachers on their differentiation practices may be helpful to ensure effective practices are employed and support is provided when differentiation is absent or limited.

Concluding Thoughts

This research study contributes new insights to the reading research community's understanding of differentiated reading instruction in exemplary teachers' classrooms. By studying the nature of and factors influencing teachers' differentiated reading instruction, this study sheds light on the value of teachers' philosophies, teaching context and analysis of data on their content, process and product decisions to tailor reading instruction. Considering the importance of these three factors and the nature of their differentiated practices can help support all teachers as they seek to tailor instruction for specific learners.
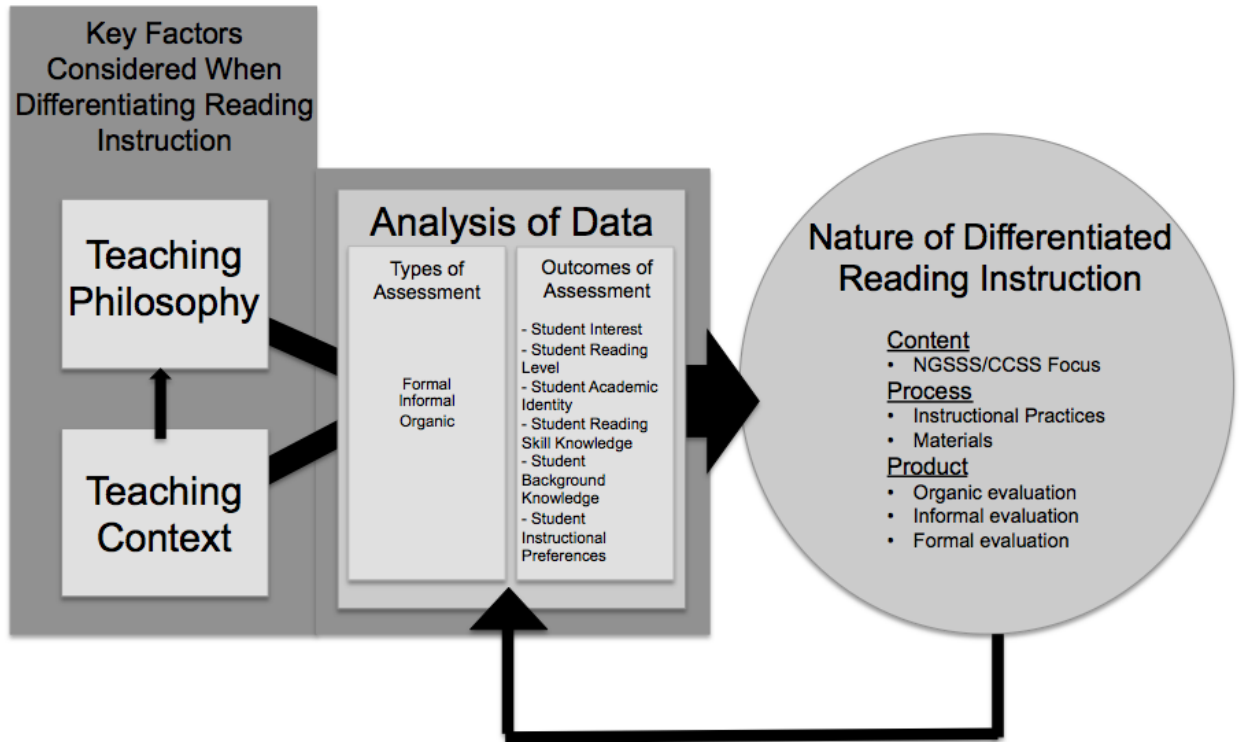
Figure 4-1. Theoretical model of exemplary teachers' differentiated reading instruction

CHAPTER 5
USING DATA TO DIFFERENTIATE READING INSTRUCTION

Differentiation is central to powerful reading instruction. Teachers who effectively differentiate practices in their reading instruction rely on a variety of ongoing assessments (Connor, Morrison, & Katch, 2004a; Connor, Morrison, Petrella, 2004b; Connor, Morrison, Fishman, Giuliani, Luck, Underwood, et al., 2011; Roehrig, Duggar, Moats, Glover, & Mincey, 2008; Tomlinson, 1995). Data from these assessments provide the clues to understanding students' strengths, weaknesses, and interests (Afflerbach, 2010; Thoermer, in preparation; Watts-Taffe, Laster, Broach, Marinak, Connor & Walker-Dalhouse, 2012). Assessments also offer insight into the effectiveness of particular instructional practices so teachers can make adjustments to the type, amount and/or intensity of instruction in order to maximize learning.

Based on the findings of a grounded theory study of four exemplary upper-elementary teachers' differentiated reading practices (Thoermer, in preparation), the purpose of this paper is to provide educators with recommendations on how to use assessments to make data-based differentiation decisions in their reading instruction. In the grounded theory study using four interviews and three classroom observations, analysis of data was found to be a key influence on the nature of differentiated reading instruction. In fact, although other factors (i.e., teaching philosophy and teaching context) had a bearing on the teachers' instruction, analysis of data was the factor that most directly influenced their instruction on a daily basis (Figure 5-1). It is important to note that the exemplary teachers were selected based on a) a minimum of three years of teaching experience in a specific content domain and instructional context; b) nomination by at least two constituencies who recognize the teachers' extraordinary

teaching skills; c) appropriate certification and degrees for the domain in which they teach; and d) success in facilitating student reading achievement when compared with other teachers in the district (Palmer, Stough, Burdenski, & Gonzales, 2005). Thus, there is evidence that the exemplary teachers' differentiated reading practices played a role in student success.

According to their analysis of student data, the teachers differentiated three dimensions of their instruction: content, process, and products. In regards to the content of instruction, the teachers used the state and national standards as a guide for what students needed to know and be able to do by the end of the school year. However, they differentiated the reading content in the areas of fluency, vocabulary and comprehension and the skills and strategies subsumed within each component. Based on evidence of children's skill and strategy proficiency, they differentiated what to teach and the time spent on teaching each component.

The exemplary teachers also differentiated the processes for carrying out instruction. Differentiated processes included the materials and instructional practices used. They differentiated instructional materials (e.g., authentic literature, dictionaries, computerized programs, Internet resources) according to students' interests, reading levels, background knowledge, reading skill knowledge and academic identity (i.e., students' feelings about themselves as students). Similarly, they differentiated instructional practices. For example, they made decisions related to the following practices: a) grouping patterns, b) amount and pacing of reading instruction, c) type of questions and amount of feedback, d) use of peer support, e) number of physical cues necessary for participation and support, and f) guidance for book selection. Lastly, the

teachers used different products or evaluation tools to determine student understanding and skill mastery. For example, teachers listened to, observed and conversed with children about their reading material; asked them to complete book projects of choice; and/or measured knowledge of particular reading skills through more formal, paper-pencil tests.

The following recommendations are based on the ways the exemplary fourth- and fifth-grade teachers talked about and used data to make content, process, and product decisions about differentiating their reading instruction. For each recommendation, questions to prompt teacher reflection are included.

Recommendation 1: Determine the Purpose for Collecting Data

The teachers began their differentiation process with the end in mind. They routinely sought to glean information about their students in six main areas: interests, reading level, reading skill knowledge, academic identity, background knowledge, and instructional preferences:

- Student interest included any topic students found engaging to learn about.

- Reading level was the level at which students could read a book either with the teacher's help (instructional level) or on their own (independent level).

- Reading skill knowledge included the level of understanding of discrete skills that aid students in becoming better readers (e.g., comprehension skills, reference skills, fluency skills).

- Academic identity encompassed the way students felt about themselves as students.

- Background knowledge included what students knew prior to reading new content that could help them read with better fluency and comprehension.

- Instructional preferences included ways in which students tend to learn best.

They believed insight in these areas provided a holistic picture of their students'

reading potential as well as clues about how to differentiate the content, processes and

products of instruction. That is, the teachers tailored instruction by drawing on the six

kinds of student data they gathered about their students.

Questions for teachers to consider:

- What do you know about your students that could help you to differentiate instruction for them?

- What else might you need to know to make the most effective instructional decisions for them?

Recommendation 2: Consider a Range of Data Sources

The exemplary teachers considered multiple sources of data to understand each

student and make appropriate decisions about their instruction. Indeed, teachers

gathered information about students formally, informally and organically:

- Formal assessments measured students' reading skill knowledge and level based on a standardized measure (e.g., district formative assessments, state-approved skills tests, and the Standardized Test for Assessment of Reading (STAR) test).

- Informal assessments also identified students' level of reading and skill knowledge, in addition to understanding of particular reading content or background knowledge using an instrument (e.g., informal reading inventories (IRI), Accelerated Reader (AR) quizzes, informal Scholastic tests, teacher-created tests and rubrics, and interest inventories).

- Organic assessments relied on "kid watching" (Goodman, 1978) or natural ways of observing students' reading skills, academic identity, background knowledge, interests and reading level where the teacher served as the tool to collect information (e.g., reading students' thinking journals, parental insight, principal advice, "cold" reads and choral reading of passages and conversing with and listening to children).

Despite the use of formal and informal assessments for gathering information,

the teachers valued most the organic forms for setting immediate and long-term

instructional goals and practices. They were constantly listening to and observing

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students' reading behaviors and skills when reading alone, one-on-one, and/or in small

and large group settings. They observed students' book selections, body language,

ability to sit and read for a period of time without moving around the room, and listened

to their actual reading, thought processes and inquiries. Two teachers sought advice

from parents about their children's reading habits at home, and one of those teachers

also requested the input of her principal as she pondered how to intervene with

particular struggling readers. Personal reflection journals on current and past teaching

practices were referenced on a daily basis by two of the teachers, and students' reading

journals offered insight into their thinking processes.

Questions for teachers to consider:

- What kinds of assessment do you rely on when making instructional decisions for your students related to reading?

- What other types of data might you consider using?

- Are there other people who might provide useful data about your students as readers?

Recommendation 3: Think About the Utility of Formal, Informal, and Organic Assessments

The exemplary teachers found it equally important to think about the utility of

each formal, informal and organic assessment because each type gave them different

information about their students' reading development. Therefore, they considered the

limitations and advantages of each assessment in informing their reading instruction.

- Formal assessments were quick and easy to administer and measured students' reading levels and achievement in a variety of skills, strategies and content. However, the exemplary teachers knew the outcomes of the assessments only revealed a cursory understanding of how well their students could read and understand a variety of texts. That is, the reading outcomes did not reveal why students exhibited difficulties or successes in the tested areas and, therefore, were only used as one tool in the process of differentiating reading instruction.

- Informal and organic assessments afforded a deeper understanding of the formal assessment data and provided insight into areas the formal assessments did not provide (e.g., students' interests, background knowledge, academic identity, learning preferences).

Organic and informal forms of assessment were used to collect a majority of the student information. Knowledge of students' interests was gathered informally using interest inventories and organically through parent interviews, and one-on-one conversations, because of the ease with which these sources afforded the information. Level of background knowledge in relation to the topics, reading skills, strategies and concepts taught was also determined through conversations with parents and observations of students, in addition to cold reads and choral reading. Choral reading allowed one exemplary teacher the means to listen to students' inquiries after completing the reading of the text to determine students' knowledge base prior to proceeding with the lesson.

Parent conversations and observations were also the primary means for gathering information on students' preferred ways for instruction (e.g., working in groups, working alone, reading activity preference) and academic identity. One teacher also sought advice from her principal. Obtaining information about how students learned best provided hints about how to accelerate reading growth by instructing students in their preferred ways of learning. In regards to academic identity, the exemplary teachers knew if students did not feel confident about themselves as students or simply did not like to read, their motivation and/or willingness to participate in reading activities would be negatively impacted. Thus, students' overall reading performance and long-term success in school and the workforce would also be influenced. Increasing students'

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reading- and self-efficacy was therefore a primary goal when thinking about and deciding upon the activities and materials to use for reading lessons.

Students' reading levels were determined formally and informally through use of the STAR test and IRIs (i.e., Burns and Roe Reading Inventory, Developmental Reading Assessment [DRA]). IRIs were chosen over the STAR test because they provided the teachers with more information than just a reading level. It also gave them an opportunity to hear their students read and process the information they read. The STAR test was taken at a computer and didn't allow for interaction between the teacher and student; however, it required less time than the IRI because students could quickly and independently access the assessment.

The formal assessments had the least utility of the three forms. For example, the STAR test only gauged students' reading level growth. Further, knowledge of students' reading skills and strategies was primarily determined through state and district formative assessments. However, informal forms of assessment such as teacher-created tests, AR quizzes, IRIs, running records obtained during cold reads, and/or reading students' thinking journals further delved into students' fluency skills, vocabulary knowledge, comprehension and overall reading development.

Questions for teachers to consider:

- What are the limitations and advantages of each kind of assessment you use?

- What information are you acquiring from each assessment? Can you glean additional information from that source that you hadn't considered in the past?

- What informal and organic assessments are you using to further understand students' performance on formal assessments?

Recommendation 4: Collect Data Often

The exemplary teachers collected data throughout the entire year so they could

adapt instruction when needed; however, some assessments were used more often

than others, and some were administered only at certain times of the year.

At the beginning of the year, the exemplary teachers typically administered

informal and organic assessments:

- Information from IRIs and the STAR test was used to appropriately match students to texts according to their reading level. Only one teacher continued to administer the same IRI (i.e., DRA) at the middle and end-of-the-year to gauge reading level growth in relation to grade level expectations and two teachers continued to use the STAR test.

- Interest inventories offered direction on books to pique students' interests and sustain their desire to read for pleasure.

- Parental conversations further confirmed students' interests and assisted in the design of learning activities aligned with students' instructional preferences. With parents, teachers discussed home and community issues of concern to a student (e.g., divorce, moving, death of a pet) as well as parents' perspectives about their child's confidence as a student as well as factors contributing to those feelings. Those students who were identified as having low self-confidence or home challenges were given more attention and support to increase their efficacy. One teacher sustained yearlong parent partnerships to advance students' reading skills and assist with classroom behavioral or emotional concerns.

- Observations expanded understandings of students' reading patterns (e.g., level of fluency skills, vocabulary knowledge and comprehension skills) and habits (e.g., what books they chose to read, how they interacted with other students during discussions, attention span and interest in activities). At the beginning of the year, observations were particularly important since the teachers had limited information about their students' reading proficiencies, knowledge, likes/dislikes and feelings about themselves as students.

Observations and conversations focused on students' reading skills, interests in

various reading topics, academic identity, and motivation and engagement in reading

activities further guided the exemplary teachers' decisions about reading instruction.

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Day-to-day observations and conversations with children gave them valuable information that helped them to fine-tune their instruction on the spot.

The teachers employed additional assessments throughout the year:

- Reading students' thinking journals was a means to understand students' thoughts and ability to put those thoughts into words.

- One teacher sought advice in January from her principal on certain students, who despite receiving individualized instruction were not advancing. She inquired into additional academic or family difficulties these students had experienced over the years that could be contributing to their lack of improvement.

- Another teacher maintained a personal notebook in order to document students' skill mastery and overall reading progress observed during one-on-one weekly instruction.

- Cold reads, choral reading and questioning gauged students' background knowledge and proficiency in a variety of reading skills, depending upon the teacher's purpose for the cold read. For example, when introducing a new unit on the "Seven Wonders of the World", one teacher had the class choral read a short text on this topic to discern, through children's inquiries, their current level of knowledge. All of the teachers checked the level and appropriateness of a book during independent reading time by listening to a child cold read a page of the text aloud.

- The teachers often created tests and rubrics to assess skills when a better form of assessment was unavailable. For example, one teacher designed a rubric to assess her students' literature circle meetings in which they were given a grade on their completion of the book, completion of their role assignment and the quality of the discussions. Another teacher developed a vocabulary test to assess her students' understanding of the words she had taught.

- Formal and informal skills-based tests were administered every nine-weeks as mandated by the district to prepare students for the end-of-the-year standardized test. Some of the teachers also administered state-approved and written formal skills tests to identify reading skill and concept difficulties (e.g., main idea, author's purpose, character development). After pulling aside small groups of students struggling with the same skill or concept, they were administered a similar formal assessment in order to closely monitor their understanding.

Questions for teachers to consider:

- What assessments do you use at the beginning of the year? Middle of the year? End of the year? Everyday? How do the data from these assessments impact your reading instruction?

- Are you over- or under-assessing students' reading needs? How might you determine how much assessment is necessary?

Recommendation 5: Organize the Data

To facilitate the process of data interpretation and synthesis, the exemplary

teachers created organizing systems. These structures were simple and often involved

the students:

- Individual student data notebooks allowed students to see their performance on district formative tests and the teachers' classroom assessments. In turn, the students could easily identify their strengths and weaknesses as readers so they could develop short- and long-term individual learning goals.

- Teachers kept notebooks and individual files to document each student's strengths, weaknesses and overall reading growth, as well as effective and ineffective teaching materials and practices. The notebook was organized by the day and used to record the one-on-one reading conferences with students. Student progression or regression in a particular skill or strategy was notated (e.g., fluency and/or comprehension strategies). This information was then compared with notes from the previous conference with the student. Additional comments were included from the teacher based on this comparison. Similarly, an individual file or portfolio chronicled one teacher's observations about students' reading skills within large- and small-group instruction as well as changes in their identity as readers and what prompted this change. She also noted students' independent exploration of topics previously taught in class, shifts in book choices and interests, and parents' academic, social and emotional concerns. These files, containing student work and the teacher's running list of notes, were then referenced during parent conferences.

  Questions for teachers to consider:

- How will you organize the information collected on each student?

- What student information is most important to keep within your organizing structures or systems?

Recommendation 6: Use Data from Multiple Sources to Clarify Insights into Students' Performance and Needs

Sometimes, the variety of data teachers collected confirmed a similar insight. For

instance, learning of students' favorite reading topics were often confirmed through

interest inventories, parent interviews and listening to children talk about their reading

interests. However, when information conflicted, the exemplary teachers considered students' learning goals and the limitations and strengths of the assessment data to determine if additional data might clarify the conflicting outcomes.

For example, in one teacher's class, a student's learning goal was to exhibit understanding of the key ideas, details and theme of a story but he scored poorly on an AR comprehension quiz. Yet, during conversation with the teacher and his peers, he was able to recall and thoroughly discuss the book's ideas, details and theme, demonstrating a deep understanding of the story. He even wrote a mini-play with three of his peers to reflect the book's events. In this situation, the disparities in data were attributed to the limitations of the AR quiz (e.g., asking lower-level questions, susceptibility of students quickly finishing the quiz without careful attention to the questions), rather than a lack of understanding on the student's part.

Questions for teachers to consider:

- What questions about a student's reading are you bringing to the data?
- Are you confident that the data provide the answers you sought?
- What additional data can you gather if assessment results conflict?

Recommendation 7: Devise and Execute an Action Plan.

After collecting and interpreting the data, the exemplary teachers devised and executed an action plan. This action plan was cyclical, moving teachers through four different parts in order to make appropriate decisions to differentiate reading instruction for each student's needs.

First, the teachers consulted local, state, and national standards when thinking about and planning reading instruction regarding short- and long-term learning goals for their students. A few of the teachers also referenced the district curriculum pacing guide

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where standards were broken down by semester. The standards and guide kept teachers aware of what students were expected to know and be able to do and, therefore, held them accountable to their students' reading growth.

Then, the teachers examined student-specific data that provided insight into their performance on the standards. They crosschecked their students' reading knowledge and skills with the standards and curriculum pacing guide and adjusted instruction accordingly to accommodate students' needs. For instance, if the grade level standard was to use known base words and affixes to identify meanings of unknown vocabulary words and the student demonstrated difficulties doing this, the exemplary teachers knew instruction was needed.

Third, the teachers used student data to determine how to differentiate instruction so as to move students toward mastery of the standards. A variety of flexible grouping patterns were utilized to place students together who exhibited similar reading needs so teachers could provide more focused instruction. They incorporated whole-group, small-group and/or one-on-one instruction daily. Within the three grouping patterns, the teachers differentiated instruction as indicated in Figure 5-1. They differentiated the content to be taught; varied the pacing and amount of instruction and feedback; solicited the use of peer support; guided book selections; developed personal learning goals with students; considered students' gender when selecting material; and engaged in the use of physical cues to initiate participation and support. Instructional materials were also chosen according to need; however, authentic literature was the preferred choice for providing differentiated instruction.

Fourth, the teachers continued to collect, analyze and synthesize data to assess student progress and make instructional decisions. Ongoing data collection and analysis was the cornerstone of teachers' differentiated instruction. Decisions about reading practices were implemented only after obtaining evidence of a need.

Questions for teachers to consider:

- Do your local, state and national standards and/or district curriculum map guide your instructional planning to meet grade-level goals?

- How are your students performing in relation to the standards?

- What are you doing to differentiate the content? The instructional practices and materials used? Students' understanding of the content?

- Do you continually collect, analyze and synthesize student data to inform your decisions to differentiate?

Closing Remarks

Making instructional decisions to differentiate reading instruction is not an easy task (Putnam, 1984; Roehrig et al., 2008), as it requires a teacher to gain and interpret a lot of information on each child's reading strengths and challenges throughout the year. Doing so requires using multiple forms of assessment, knowing the limitations and strengths of each assessment, administering the best assessment to obtain the desired information, understanding how to synthesize and organize the data, and translating insights gained from data to classroom practice. This process is ongoing and entails comparing the student information obtained with the state and national standards and/or the district curriculum map to determine how and what kind of reading instruction to execute. When teachers are "data wise" (Boudett, Murnane, City & Moody, 2005) or "data literate" (Mandinach & Gummer, 2013), they can maximize learning opportunities to meet the diverse reading needs of their students.
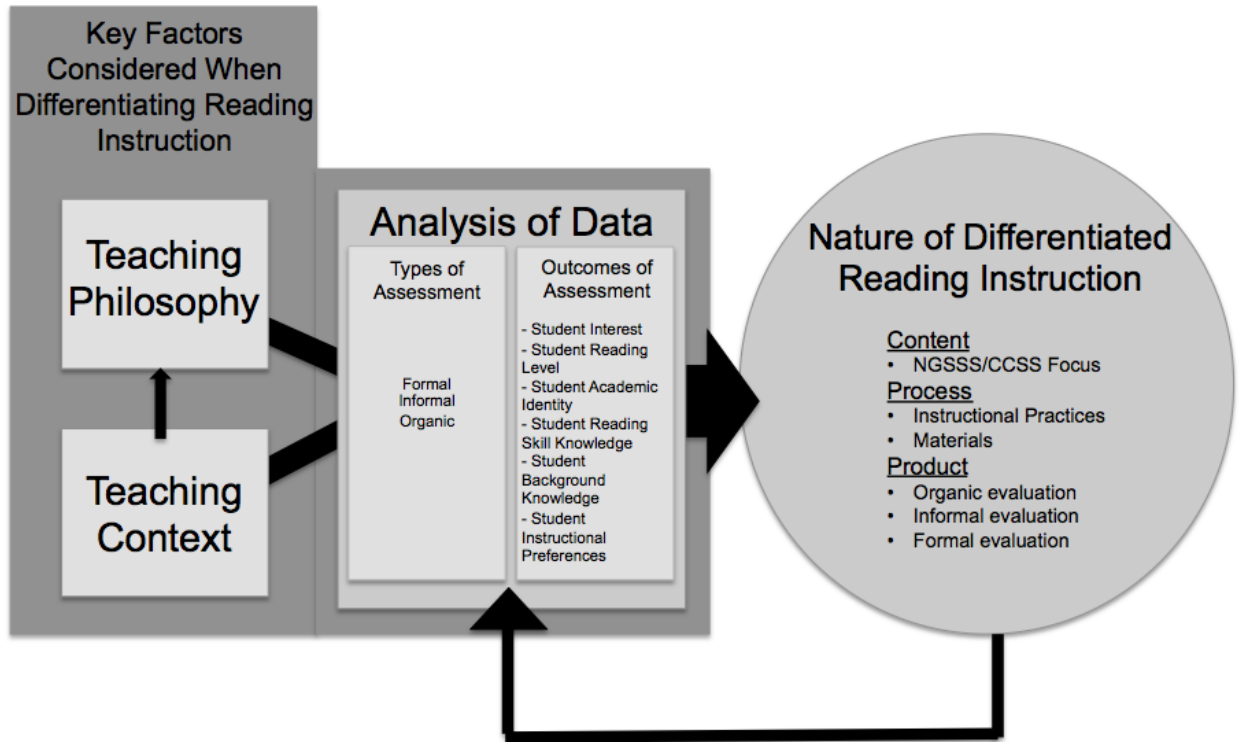
Figure 5-1. Nature of and factors impacting exemplary teachers' differentiated reading instruction

CHAPTER 6
CONCLUSIONS

This study investigated exemplary upper elementary teachers' decision-making processes when differentiating reading instruction for the variety of learning needs in their classrooms. The following questions guided the study: 1) What is the nature of differentiated reading instruction in exemplary fourth- and fifth-grade reading teachers' classrooms? and 2) What factors do exemplary upper-elementary school reading teachers consider when making decisions about differentiating reading instruction? A constructivist grounded theory framework was used (Charmaz, 2006) to understand the complexity of the teachers' behaviors and perceptions related to making differentiation decisions when teaching reading (Bogdan & Biklen, 2007). This framework allowed for close examination of the relationships among and between the teachers' responses and actions in their teaching contexts to construct a theory that explains their practice.

Four exemplary fourth- and fifth-grade teachers consented to be in the study. To obtain cases relevant to the study, the district Language Arts coordinator nominated one fourth- and one fifth-grade teacher from two schools as outstanding reading educators based on set criteria, which was later confirmed through principal recommendation. The study took place in Lisa's fifth-grade and Devon's fourth-grade classroom at Otter Elementary School. Lisa provided Language Arts and Social Studies instruction for her class and a colleague's students. Devon taught all subject areas and had looped with her fourth-grade class. Two Manatee Elementary School classroom teachers also participated in the study: Sarah, a fifth-grade, departmentalized Language Arts teacher, and Anna, a fourth-grade teacher of all subject areas. Otter Elementary was located in a more affluent neighborhood serving a higher population of middle- and upper-class

students whereas Manatee Elementary served a more diverse student population where a larger percentage of students were on free and reduced meals. However, both schools had a high-quality teaching staff and had performed well on standardized assessments.

During the 2012-2013 school year, participants completed four audio-recorded semi-structured interviews during the first three weeks of May. The first interview aimed to gather information on their perceptions of differentiated reading instruction, how this type of instruction was carried out in their classroom and factors contributing to their decision-making when tailoring reading instruction. Following the initial interview, three observations were conducted in each classroom for the duration of the language arts block. The researcher assumed a passive role during observations, avoiding eye contact with students and recording field notes on a laptop computer. The observations acted as a guide to structure future interviews for the purpose of elaborating and refining theory construction. Therefore, the purpose of the last three interviews was to use field notes and data from previous interviews to ask more pointed questions. These last three interviews took place in teachers' classrooms immediately following each observation.

Data analysis began during and after completing the first interview and continued throughout the duration of the data collection process. Meaningful units were openly coded within each interview using gerunds, and observations helped to inform and refine future interviews. Through constant comparative methods (Glaser & Strauss, 1967) and memoing, initial codes were compared and used to form categories and subcategories, which helped synthesize larger segments of the initial codes. After the

categories, or focused codes were constructed, relationships were sought among and between the categories in order to move the data toward an explanatory theory. In addition to memoing, situational mapping assisted in the construction of the theory by providing a visual representation of the relationships between and among the focused codes.

Findings revealed that the nature of exemplary upper-elementary teachers' differentiated reading instruction was significantly influenced by three key factors: teaching philosophy, teaching context, and analysis of data. The factors influenced teachers' differentiation of the content, processes to learn the content, and products to evaluate if student learning occurred. Teachers' ongoing data analysis from multiple types of assessment (i.e., formal, informal and organic) was impacted by their teaching philosophy and context and continued to inform content, process and product decisions.

The first key factor, teaching philosophy, consisted of a teacher's educational goals and beliefs about teaching and learning. Certain school experiences were influential in affirming and/or informing their beliefs over the course of their teaching career, but only when they witnessed increases in students' learning. In this study, the teachers talked about their teaching contexts in terms of within and outside of school forces influencing their instruction. Discussion of national, state and local policies such as standards and curriculum maps reflected external school forces. Outside influences served as guideposts or goals to meet by the end of the school year. Conversely, the internal school forces consisted of teachers' past and current experiences, including professional development, colleagues, principal initiatives and students. It was within school elements, specifically teachers' past experiences, that had the greatest impact

on their instructional decisions for tailoring reading instruction. However, in one of the two schools, the principal's initiatives provided the teachers with structures to aid their differentiation processes.

Philosophical and contextual factors informed the teachers' analysis of data, which consisted of organic, informal and formal types of assessments for gathering information on students' background knowledge, reading level, academic identity, reading skill knowledge, instructional preferences, and interests. This information was then used to inform the nature of their differentiated reading instruction. The teachers differentiated the content of the national and state standards related to the reading components of fluency, vocabulary and comprehension; the processes or instructional practices and materials for ensuring students' understood the content; and the products or ways used to assess student outcomes in the learning process. Structures and routines within a variety of instructional frameworks (e.g., Readers Workshop and Four Blocks model) supported their differentiation processes so they could collect a lot of student data.

Within these frameworks, all of the teachers' utilized flexible grouping patterns where they varied their questions, feedback, pacing, and support as well as the amount of instruction provided. They also developed personalized learning goals with their students; helped their students choose appropriate reading material; capitalized on peer support and encouragement; considered students' gender; and used physical cues for differentiating the teaching of reading. Furthermore, their choice of materials included authentic texts that were meaningful, specific to students' needs, and of high-interest. In

essence, the nature of their differentiated reading instruction was fluid and dependent upon their ongoing analysis of student assessment data.

Discussion

Two of the influential decision-making factors in this study, teaching philosophy and teaching context, are consistent with previous research. For the past thirty-five years, a number of studies have documented the influence of teachers' beliefs about teaching and learning and their teaching context on reading instruction (e.g., Bawden et al., 1979; Borko & Niles, 1982; Davis & Wilson, 1999; Doyle, 1977; Duffy & McIntyre, 1980; Fogarty et al., 1983; Howard, 1988; Jackson, 1968; Livingston & Borko, 1990; Peterson & Comeaux, 1984; Rupley & Logan, 1985). Of these studies, some have specifically investigated expert teachers of reading (e.g., Putnam & Duffy, 1983).

According to Clark and Yinger (1977), decisions and actions stem from theories about how instruction should be implemented. The exemplary teachers' theories or philosophies about reading instruction were the result of experiences from within and outside their school environment. Similar to other scholarly work, national, state and local policies (Norman, 2008; Schulz, 2005), student information (Borko et al., 1981; Buike, 1980), and past professional learning opportunities with colleagues (Solic, 2011) were some of the contextual factors found to influence teachers' decisions and practices. Additionally, the role of the principal greatly influenced what and how instructional approaches were implemented (Bentley, 2007; Concannon-Gibney & Murphy, 2012; Hoppey & McLeskey, 2010). The principal's school-wide initiatives, TIDE and individual student goal sheets, in the Title I school served as structures for differentiated instruction.

Findings also support and add to current research on the nature of differentiated instruction (Tomlinson, 1995, 2002, 2011). According to Tomlinson (1995), teachers should differentiate content, processes and products of instruction based on students' readiness level, interests, and learning profiles or students' preferred learning style. Readiness level refers to the knowledge, experience, and skills students bring to a particular learning situation, which is influenced by previous life experiences as well as their attitudes about school. The four teachers tailored reading instruction according to students' interests and learning profile, but also considered four additional elements: reading level, background knowledge, reading skill knowledge and academic identity. Although two of the elements, background knowledge and reading skill knowledge, are subsumed within Tomlinson's definition of "readiness level", reading level and academic identity have not been identified as factors to consider in differentiation decisions.

It is important to note that Tomlinson's differentiation recommendations are not specific to the teaching of reading. Thus, the exemplary reading teachers' consideration of students' reading level in their differentiation decisions was not surprising. The role of students' academic identity in differentiation is, however, a new element for teachers and researchers to consider. The exemplary reading teachers were equally concerned about students' sense of themselves as students and their attachment to school as they were about their reading achievement. Because they believed that a positive academic identity was related to academic achievement, they considered this factor in their decisions about differentiating reading instruction.

Information teachers use to guide decision-making shed light on additional elements that need special consideration for upper-elementary school classrooms,

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specifically. Connor and colleagues (Connor, Morrison, & Katch, 2004; Connor, Morrison & Petrella, 2004; Connor et al., 2011) reported that differentiating reading instruction based on students' knowledge, reading skill level (i.e., vocabulary, comprehension, and word reading), and interests should determine the amount and type of instruction students' receive. However, beyond these elements, my study found that some teachers also consider students' academic identity, reading level, and their instructional preferences for learning content.

While research has found flexible grouping patterns are present in effective teachers' classrooms, especially the use of small groups (Taylor et al., 1999, 2000), new insights have been revealed about how differentiated instruction is enacted. The exemplary teachers tailored instruction by varying the amount and pacing of instruction as well as the questions and feedback for individuals and groups. They also engaged in physical cues, solicited peer support and encouragement, considered students' gender, guided book selections, and developed personal learning goals. Establishing structures and routines was crucial for allowing these differentiated practices to occur (Connor et al., under review; Sousa & Tomlinson, 2011), and authentic literature was the material of choice.

Finally, the findings add to the growing body of evidence noting the influences on teachers' reading instruction. Research on expert teachers (Putnam, 1984; Putnam & Duffy, 1984) has documented ongoing data collection, synthesis and decision-making based on student data throughout the year. However, the types of assessments valued by exemplary teachers have been noted less frequently. The exemplary teachers utilized a variety of formal, informal and organic reading assessments. Organic forms of

assessment or "kid watching" were valued the most for making decisions about adjusting instruction. The teachers listened to, observed and conversed with children throughout the day. Doing so appeared to maximize students' learning opportunities, resulting in high levels of reading achievement, as identified by formal, informal and organic forms of assessment. As a result, teachers could accomplish their goals: to instill a love of reading and equip students with the knowledge and skills to be successful in future grade levels and life beyond school.

Implications for Reading Education

In this study, exemplary teachers of reading conducted ongoing assessments of their students in order to determine the content, processes, and products of reading instruction. Their teaching philosophies and teaching contexts shaped assessment choice. The information gathered allowed the teachers to be responsive to and flexible in addressing the needs of their students, using authentic literature to do so. Therefore, providing instructional support systems to assist teachers of all experience levels in engaging in the differentiation process may help them be more effective teachers of reading. For instance, teachers may benefit from organizational systems or charts that would help them identify areas of need using multiple assessments. Teachers may also benefit from established school-wide structures. For example, each grade level can collaborate to identify grade-level needs and group students so that each teacher takes a group for targeted instruction daily. Developing systems and structures is important because many teachers report the challenges they face in attempting to accommodate students who struggle the most in learning to read (Baumann, Hoffman, Duffy-Hester, & Ro, 2000).

Further, teachers need professional learning opportunities to support the differentiation process where student assessment data drive teachers' instructional decisions. By collaborating with colleagues, they can learn ways to improve students' reading proficiency. Perhaps Jinkins' (2001) study can serve as a model of how to engage teachers in professional development focused on data-driven decision-making. Using an assessment-driven instructional model, teachers were taught the reading/writing processes and connections between achievement and instruction based on assessment. After twelve weeks of implementing this teaching/learning cycle, student behaviors, attitudes and writing skills improved, and seven of the nine students for whom data were collected, made at least a half year's reading growth with four of the students obtaining the equivalent of a full year's growth. This suggests that when teachers understand and use data to make informed instructional decisions based on the instructional cycle, students' reading growth is accelerated. Providing powerful professional learning experiences for teachers can increase students' reading achievement (Sailors & Price, 2010; Hilden & Pressley, 2007) and reinforce the use of good instructional practices for differentiation. As teachers see changes in their students' outcomes, use of effective practices will be sustained (Guskey, 2002).

Research has also shown that teachers are always in need of resources, such as materials and literature, to support classroom instruction (Boggs & Szabo, 2009; Hilden & Pressley, 2007; Lee, Hart, Cuevas, & Enders, 2004). This was also found to be the case in the four teachers' classrooms. They were unhappy with the scarcity of high quality, high interest and developmentally appropriate literature to support their

differentiated reading practices. Books on a variety of levels and topics were key to their successful instruction; yet, they had limited access to them.

To alleviate this issue, schools should ensure teachers have well-stocked classroom libraries. McGill-Franzen, Allington, Yokoi and Brooks (1999) recommend teachers have at least 1000 books in their classroom library collection. Of course, continually stocking the school library with more children's books would also be beneficial for providing teachers and students with more reading options (Neuman & Celano, 2001). Knowing money is scarce within schools, perhaps teachers could write classroom mini-grants, hold school or classroom fundraisers, ask for donations from families, partner with local businesses, and/or purchase books at a reduced rate at local libraries and garage sales.

Finally, this study has implications for teacher education programs. In addition to ensuring pre-service teachers develop a comprehensive knowledge base of reading concepts and effective practices prior to entering their professional career, Fairbanks et al. (2010) recommend exploring four additional components. The components include a teacher's vision, beliefs and personal practical theories about teaching and learning, sense of belonging or "fit" within the professional community, and identity as an educator. Some of these elements were embodied within the exemplary teachers' philosophies that drove decision-making regarding assessments and reading practices. They were "unconsciously competent" at ensuring each child received what was needed to improve his/her reading proficiency. The researchers suggest that explicitly addressing these components alongside knowledge development in undergraduate

coursework will support pre-service teachers in becoming more thoughtfully adaptive and responsive to students.

Implications for Future Research

This study's findings provide direction for future scholarly work in reading education. While this study was conducted in one school district in the state of Florida, there is a need to examine exemplary teachers in different schools and states. Studying other exemplary teachers using the same criteria delineated by Palmer et al. (2005) would allow for a deeper understanding of differentiated reading instruction across a variety of contexts. Information obtained from additional studies on exemplary teachers can then be used to better support novice teachers as they begin to learn how to differentiate instruction.

Researchers may also be interested in expanding the scope of this study or closely studying certain components of the theoretical model, such as teachers' analysis of data. Exploring exemplary teachers' decision-making over the course of a year may clarify the evolution of teachers' differentiated instructional practices. Following a group or several groups of students receiving instruction tailored to their needs may enrich understandings of students' reading growth and the differentiated practices contributing to their achievement.

Researchers may want to develop a valid and reliable observation tool to capture the nature of differentiated reading instruction using the constructs discussed in the study: content, process, product and data analysis procedures. Evaluating teachers on their differentiation practices may be helpful to ensure effective practices are employed and support is provided when differentiation is absent or limited.

Concluding Thoughts

This research study contributes new insights to the reading research community's understanding of differentiated reading instruction in exemplary teachers' classrooms. By studying the nature of and factors influencing teachers' differentiated reading instruction, this study sheds light on the value of teachers' philosophies, teaching context and analysis of data on their content, process and product decisions to tailor reading instruction. Considering the importance of these three factors and the nature of their differentiated practices can help support all teachers as they seek to tailor instruction for specific learners.

UFIRB 02 – Social & Behavioral Research

Protocol Submission Form

This form must be typed. Send this form and the supporting documents to IRB02, PO Box 112250, Gainesville, FL 32611. Should you have questions about completing this form, call 352-392-0433.

Title of Protocol:	Examining the Decisions and Practices of Exemplary 4th- and 5th-Grade Teachers When Differentiating Reading Instruction		

Principal Investigator:	Andrea Thoermer		UFID #:
Degree / Title:	UF Doctoral Candidate	Mailing Address: (If on campus include PO Box address):	Email:
Department:	School of Teaching and Learning	PO Box 117050 Gainesville, FL 32611-7050	Telephone #:

Co-Investigator(s):		UFID#:	Email:

Supervisor (If PI is student):	Dr. Elizabeth Bondy	UFID#:	
Degree / Title:	Ph.D./ Professor and Director	Mailing Address: (If on campus include PO Box address):	Email:
Department:	School of Teaching and Learning	2423 D Norman Hall PO Box 117048 Gainesville FL 32611	Telephone #:

Date of Proposed Research:	4/28/13 – 4/28/14		

Source of Funding (A copy of the grant proposal must be submitted with this protocol if funding is involved):	Personal funds

Scientific Purpose of the Study:

The purpose of this study is to describe the decisions and practices of exemplary 4th- and 5th-grade teachers' differentiated reading instruction.

Describe the Research Methodology in Non-Technical Language: (Explain what will be done with or to the research participant.)
Participants will be three fourth- and fifth-grade teachers. Teacher participants will be asked to participate in four semi-structured interviews that will be conducted at the school by the principal investigator. Semi-structured interviews will last up to 60 minutes. Interviews will also be audio recorded and transcribed. See interview guides attached. All identifiers will be removed from interview transcripts and each interview participant will be assigned a pseudonym. Data and findings will not be linked to identifiers. Each teacher's classroom reading instruction will also be observed using running field notes. Student work and discussion will not be recorded. Field notes will document any additional information that may be relevant to the research questions.

Describe Potential Benefits:
This study will provide insight into how exemplary 4th- and 5th-grade teachers make decisions when differentiating their reading instruction to meet the needs of their diverse learners. The findings from this study can promote discussions about professional development opportunities and instructional supports that might be needed to help teachers more effectively teach reading for low-, average- and high-achieving students.

Describe Potential Risks: (*If risk of physical, psychological or economic harm may be involved, describe the steps taken to protect participant.*)

No more than minimal risks are anticipated.

Describe How Participant(s) Will Be Recruited:

Three exemplary teachers from grades four and five in the state of Florida will be nominated by the district language arts coordinator based on set criteria. Selected participants will be informed of the study and asked to sign a consent form (see below). The principal investigator will then establish a time to meet with the participants to conduct the initial interview. Participants have to be full-time, practicing fourth- and fifth-grade teachers. No monetary compensation will be provided to teachers who agree to participate in this study.

Maximum Number of Participants (to be approached with consent)	**5 teachers**	**Age Range of Participants:**	**20-70 years**	**Amount of Compensation/ course credit:**	**n/a**

Describe the Informed Consent Process. (Attach a Copy of the Informed Consent Document. See http://irb.ufl.edu/irb02/samples.html for examples of consent.)

Exemplary teachers will be nominated by the district language arts coordinator and then provided information on the logistics of the study. Teachers will be reminded that participation is voluntary and that their names will not be

associated with any data collected in the study. They will be provided an informed consent letter, which is attached.

(SIGNATURE SECTION)		
Principal Investigator(s) Signature:		**Date:**
Co-Investigator(s) Signature(s):		**Date:**
Supervisor's Signature (if PI is a student):		**Date:**
Department Chair Signature:		**Date:**

APPENDIX B
INFORMED CONSENT LETTER

Dear Teachers,   Date: _____

I am a doctoral student in the School of Teaching and Learning at the University of Florida and would like to invite you to participate in a research study, *Examining the Decisions and Practices of Exemplary 4th- and 5th-Grade Teachers When Differentiating Reading Instruction.* This study will explore what factors teachers take into account when making decisions to differentiate reading practices in the classroom. Teachers will participate in four interviews and be observed three times during the Language Arts block.

If you agree to participate in this study, I will interview and observe your teaching practices in reading on three separate occasions during your literacy block. Each interview should take no longer than 60 minutes. The observations will be scheduled in advance at a time convenient for you. During observations, I will take notes on your instructional practices in reading and then follow up with an interview about what I observed in order to obtain further clarity about your practices and decisions. Your name will be coded with a pseudonym or number for confidentiality. No identifying information about you or your school site will be used in any written or oral report. All observation data will remain confidential to the extent provided by law and will only be discussed with the individual participant. There are no direct benefits to you for participating in the study. However, you will receive a gift card for your willingness to be involved.

There will be no risks for your participation. The observations will not disrupt the learning process in your classroom. Your participation is voluntary, and you have the right to withdraw your consent without consequences at any time during the study. I am willing to discuss this study with you at any time and will answer any questions. At the completion of the study, I would like to discuss the findings with you. I would then like to share the results of the study with others interested in reading instruction. A copy of the results from this study will be made available to you, should you request it.

If you have questions, please contact Dr. Elizabeth Bondy at 2423 D Norman Hall PO Box 117048, Gainesville, FL 32611 or Andrea Thoermer at 1403 Norman Hall, PO Box 117050, Gainesville, FL 32611. Please direct any questions or concerns about research participants/rights to UFIRB Office, PO Box 112250, Gainesville, FL 32611-2250; phone (352) 392-0433.

Sincerely,

Dr. Elizabeth Bondy
Andrea Thoermer

I have read the procedure described above for "Examining the Decisions and Practices of Exemplary 4th- and 5th-Grade Teachers When Differentiating Reading Instruction" study. I voluntarily agree to participate in the study and have received an explanation of the study.

_____ _____
Signature of participant   Date

_____
Print Name

Please provide your daily email contact information (e.g. jdoe@ps.edu). Thank you.

Email address: _____

APPENDIX C
INITIAL INTERVIEW GUIDE

In this interview I want to talk to you about how you differentiate reading instruction.

1. Please tell me about your background as a teacher (grade level teaching experience at different locations both current and past).
    a. What training did you complete to become a teacher? Tell me about your training experience (e.g., teacher preparation program or other alternative routes).
        i. What experiences were most and least beneficial in preparing you for the classroom? Why?
        ii. Tell me about your preparation to teach reading. How well prepared were you?
2. What does a 'typical' day of reading instruction look like in your classroom?
    a. What instructional resources/approaches/methods do you use?
    b. How much time do you spend teaching reading?
3. Tell me about your classroom learning environment.
    a. Tell me how you manage and organize your language arts block.
        i. What factors impact your decisions about managing and organizing the language arts block?
    b. Talk to me about your relationship with your students. Is your relationship with them related to your differentiation of reading instruction? If so, how?
    c. What is important about your learning environment as it is related to your reading instruction?
4. Can you please tell me about the characteristics/attributes of the students you are currently teaching at this time in the school year? How are they similar to one another? Different from one another?
    a. Can you please elaborate on these characteristics in terms of reading?
    b. How would these descriptions compare with students' attributes at the beginning of the year? Middle of the year?
    c. How did you come to these conclusions?
5. How do you differentiate your reading instruction to meet your students' needs?
    a. What practices do you use? Group learning structures? Content-coverage?
        i. What factors impact these decisions? (e.g., past experiences, literacy coaches, administration, curriculum, basal readers, colleagues, professional literature, professional development, policy, assessment, etc.)
        ii. Please talk to me about any additional factors that influence your decision-making when differentiating reading instruction.

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      iii. What is the most influential decision-making factor concerning differentiated reading instruction? Could you tell me more about why that factor is so influential?

    b. Describe a 'typical' day of reading instruction for low-, average, and above-average readers.

6. Tell me what it's like for you to provide differentiated reading instruction.

    a. What challenges to you face?

    b. What strengths do you have that assist you in differentiating reading instruction?

7. How do you know if a student is improving or having difficulties improving his or her reading proficiency?

    a. Please provide an example of each situation and the decisions you made to support student learning.

8. Tell me more about planning reading instruction that is tailored to each child's needs.

9. Tell me about your reading instruction during a typical week. In particular, I'm curious about ways you differentiated instruction. How did you decide to differentiate in this manner?

10. You just finished telling me about your current practices and decisions when differentiating reading instruction. Now tell me about how you learned to differentiate reading instruction for students with varying needs.

11. One policy initiative impacting reading instruction is the Response to Intervention (RtI) multi-tiered instructional framework. Talk to me about RtI and how it has impacted your reading instruction.

12. There's so much attention being paid to reading instruction these days. What kinds of things has your school or district been doing to help teachers improve reading instruction, specifically, concerning differentiated instruction?

    a. Have some of these opportunities been more effective than others? Please explain.

    b. How has your reading knowledge and instruction been affected by these opportunities?

    c. Are there other things you think your school or district should do to help teachers strengthen their reading instruction?

13. What questions do you have about differentiating reading instruction?

14. What else would you like to tell me about differentiating reading instruction that I haven't asked you?

Thank you for your time.

Partial Interview Guide for Interviews 2, 3, and 4 (specific questions will emerge from the observation data and a participant's responses to previous interview questions):

At this time, I want to ask you a few questions about what I observed today.

1. Did you differentiate reading instruction today? Tell me about it.

2. I noticed that you often {name a teaching practice related to differentiated reading instruction}. Tell me about this. How did you decide to do this with your students?

3. I also noticed that you used {name the instructional resource} during your reading instruction. Can you tell me why you decided to use this? Have you always used these resources? If not, what other resources have you used to teach reading?

APPENDIX E
FIELD NOTES SAMPLE

Practices Observed on 5/17/13	Time	Questions
• Classroom Layout ○ Tables, classroom library of leveled books and books organized by themes, chair and area for mini-lessons, bulletin boards (empty because of FCAT); Classroom management poster; student work, computer station, books on display on board, schedule listed, • Came in from recess and picked up folders to go to assigned subject area class; quiet, followed directions, formed two lines • New class arrived quietly, sat down in seat, got their homework for the evening and sat on the floor in front of white screen in front of classroom. Teacher attended to clerical items. Count down to be ready for work. • Introduced self to class. • Vocabulary Instruction - On screen, the teacher displayed pictures of items and the students had to write down the word that described the picture (x-ray of hand – Polydactyl). Called on student to answer and told students to be aware of word if didn't know what it was. Second picture (tetrahedron – polychromatic/polyhedron). Students referred back to vocabulary notes for definitions and students had to explain which word would be the best for the pictures (Polychromatic) because it was displayed in color and usually pictures are in black and white. Asked Madison to think aloud her thoughts – WHY MADISON? IS SHE A STRUGGLING STUDENT? Students discussed next picture with neighbor. All words had 'poly' in them – root word study. Another student noticed a root of a word (Bon in bonjour) that was studied in October. Teacher reinforced and praised students' connection from many months ago. Asked students to think about why certain pictures were associated with the vocabulary words (e.g., polyclinic). Redirected students if answers were not adequately provided. • Chart work/Learning Goals for Week and Day – Teacher asked how students will prepare and study for the vocabulary test later this week. Each student wrote down his/her own action plan. Students participated in a mix-pair-share activity. Third goal – predicting deeply (using the text and background knowledge; proof from the text for choice in prediction); teacher reviewed point of view; figurative language. New chart displayed with two columns: 1) What are the characters saying and doing and 2) My Prediction. • Read Aloud – "Meet the Pain" – poem. No questioning during reading? • Think Aloud/Comprehension Strategy focus – Teacher models how to do the prediction activity and asks students to get ready to participate later. First column – Mom and Dad love him/her more. Second column – jealousy (Connected to own experience growing up with brothers and sisters). Also predicted that jealously may result in fighting. Student reminded the teacher that she forgot to read the title and so the teacher went back and introduced the book, which is an important aspect of the predicting strategy. • Turn and Talk activity – used to discuss new vocabulary word (errands). • Students Turn to Practice Prediction Strategy – The teacher provided a question to the students and they had to predict what will happen based on the question. Students have to use story clues to support their prediction. • Independent Reading Time – students have to write down a prediction and the proof for their predictions. Reviewed independent reading expectations. Teacher conferenced with a student to increase his fluency skills while the remaining class grabbed their container of leveled books to read and practice the prediction strategy. The first conference lasted for five minutes. Teacher met with another student for five minutes, and then a third student for five students.	10-10:20 10:20-10:40 10:40-10:45 10:45-11:05 11:05-11:09 11:09-11:25	How did you decide which students to choose to provide answers to your questions or think alouds during whole-group instruction for vocabulary and the predicting strategy? (see notes on Madison.) How do you attend to students' learning differences in your whole group reading instruction that occurred today? In your read aloud, specifically? What did you do with the student during your one-on-one time? Why did you decide to meet with this student? What did you take into consideration when deciding to meet with this student? How did you decide the amount of time needed to help the student? do you teach similar concepts to other students? Talk to me about how you decided to help the second and third student. Why did you choose to meet with these students, specifically? What influenced your decision to use the material/resources that you did with these students? How often do you meet with your autistic child? What modifications do you make to differentiate your instruction for her? Where do your children sit in the classroom? How have you grouped them at the tables? Please explain their place in the room and your decisions for having them sit in those seats.

APPENDIX F
MEMOING SAMPLE

5.30.13
Nature of DI – Anna
Questions – Still trying to look at all the intricacies of DI and stay focused on how this is occurring in Anna's classroom. How similar to other teachers? She definitely differentiates based on students' interests because she provides a lot of opportunity for choice (e.g., books for book clubs and book projects to demonstrate understanding). She also looks at the different skill levels of students because she works on a daily basis with her lowest performing students. Reading levels are also used to ensure students are matched with texts on their instructional level. What else is going on? Students do love to spend time playing "games" to learn vocab.

Instruction must be very diverse because class has very diverse needs.
Four Blocks Model which incorporates whole-group to teach reading strategies, vocabulary using attention grabber and getting students excited followed with reading response journal/graphic organizer and then into small group instruction and independent reading time either reading alone, in pairs, small groups or in books clubs.
Chooses to use stations (book clubs, word study groups, research groups) over Café five and whole group instruction for 30 minutes – very flexible groups
Listening center – ensures reading on their level followed with comprehension questions or activities.
Students given choice on reading selections
Love to purchase high-interest books
Integrating LA instruction with Social studies – big unit on government/presidents (136-141, int. 1)
Using literature to teach character development/health/social skills because issue with bullying in class and it tied in with standards (143-145, int. 1)
Uses a lot of journal writing and dislikes workbooks
Student-centered room – reinforces co-ownership of the room.
Very comfortable; safe for students to make mistakes; no teacher desk; sharing of teacher items (pens, etc.); still have consequences though; children receive dollars for good character – school wide character-building initiative (170-182 int. 1)
Holding high expectations and accountability so things run smoothly by getting student buy-in/interest so behavior issues are less – uses team building and team accountability to receive points; a lot of rewards and praises; marble jars/candy for good behavior (190-200, int. 1)
Assigning seats every 2-3 weeks – mixing things up; allowing student choice at certain times and students sit next to people who hold them accountable and work well with; placing well-behaved kids next to poorly behaved kids. Seating gifted together.
Providing reading incentives for students – temperature gauge, AR, etc. – students wanted a Readapaloosa.
Teaching words through physical movement and word building activities (teaching 5 words a day and putting on word wall) – Students talk about how much they love using

the word games to strengthen their vocabulary knowledge.

Explicitly teaching high frequency words, polysyllabic words and testing words

Believing students need to know where they are and where they are going – being self-sufficient and aware of strengths and weaknesses.

Using AR quizzes to gauge student understanding of book, but only used as one tool.

6.13.13 - Factors

Assessments – prominent in all teachers' classrooms

Questions – How else can I think about this factor?? What are the commonalities among teachers?

It is apparent that the teachers use many kinds of assessments throughout the year. Some are used more than others and at particular times of the year. The information gathered from these assessments provide a baseline for carrying out instruction. Based on their responses, informal reading inventories such as the Burns & Roe Inventory and the Developmental Reading Assessment (DRA) are the most popular forms of IRIs used. The teachers also talk a lot about how they watch or observe their students in different reading situations to give them information regarding their interests and how they interact with texts independently and in a variety of group settings. While not as important as listening to students, information from informal skills tests also provide information about students understanding in these skills. The teachers know that students are expected to take standardized tests before exiting the grade level and therefore don't want to overlook ensuring students are prepared. However, some teachers tend to rely on the skills test more than others. Interest inventories were other assessments of choice for the beginning of the year so they could choose books that would peak their students' interests and keep them motivated to learn and read.

One teacher also talked the importance of gaining information from her students' parents. She wants to know every little in and out of her students' lives. More than acquiring a deeper knowledge of their interests, she wants to know how students' feel about themselves at home and in the school setting. After earning her parents' trust, she is often given insight into why students' may be acting a particular way. She values their help and continually relies on their support all year long.

The teachers also utilize many other assessments. Assessments are constantly occurring day in and day out. Two teachers have their students take the STAR reading test to determine if their reading level has increased or stagnated. They still focus most of their time on observing and conversing with children. One teacher uses a data notebook to keep track of students' progression in reading skills and strategies when meeting with them during her one-on-one conferences. Another teacher keeps samples of student work in individual files, making sure to document increases in student confidence levels. Three teachers also use a data notebook for each student and the student also has input. The teachers conference with the students about these data

notebooks and together develop learning goals that would be most appropriate.

Cold reads are also popular with two teachers and all teachers are required to administer the district formative tests every nine weeks, but only three really talked about how important it was when making instructional decisions. One teacher, in particular, even supplemented the district formative tests with additional state developed skill tests, but was quick to mention that these were only given every two to three weeks. To her, teaching reading involved using authentic literature. These same sentiments aligned with the other teachers. Another teacher used AR quizzes and children's book projects to provide insight on their understanding of the books read in class.

I think it is important to look across the teachers' choices for assessing students' needs in order to determine commonalities. While do already see some apparent ones, a closer look at each teacher can provide more clarity to the role of assessments in their differentiated reading instruction.

Interviewer: So tell me about your classroom learning environment, about how you kind of…I just kind of run through these different kinds of questions to get you thinking about them. Tell me about you manage and organize your language arts block. What factors impact your decisions to organize the classroom in this manner, and I'd like to hear about your relationship with your students; how is that necessarily related to your instruction to differentiate instruction for your students, and what is important about your learning environment as it is related to your reading instruction? I will hit on these again, as you are talking, if there's something I want you to elaborate on.

Teacher: Ok, typically if I had to say I was doing reader's workshop. For example the piece right now about Patricia Polacco, Pink and Say, is a story of two Union soldiers, one Caucasian, one African-American. That piece would be introduced today and teased within a three minute, a tease of a book title they are not familiar with, and then asking questions about that Pink and Say and me not answering any of the questions but listening to what is motivating them to want to know more followed by a brief opening of the pictures and showing them how important different parts that I want to zero in on is the use of illustrations to show, for example, embracing, to hug and also to "embrace this idea." So within the first reading block say if you were teaching traditionally a ninety minute block, the first five minutes is to give them a taste; a wet. It could be a mystery bag where I have components of something that I want them to see where I might pull out one or two just to again broach… "What? Are we going to do doing? But not told, which holds them. The class always has to have an interest. If they're not feeling me I switch. For example, A Wrinkle in Time, it wasn't working. I was asked by my principal to teach the book; it had too much scariness, it had too much… when they're reading these twenty pages at night they were getting worried about the black thing, the shadow out in this other dimension that was looking down and approaching them. I could tell, just from the discussions previously that this book was something a little bit more alarming than I felt comfortable with; we stopped the book today – that's the decision. After the "wetness of the appetite," per se, then I take them immediately into a shared reading. In a shared reading, I have something posted that is always going to be above their level, definitely above their reading level, and they'll read it, hence, you know me, Andrea, they are reading classic literature. So it could be, like right now we're studying classic poems, alright; these stanzas are embraced or maybe they're reading like a dialogue between two characters, that they need to know. So they're reading something but all this is going to intertwine, so when we come back from shared reading and push that vocabulary, really delve into "Why did the author use that word rather than that? That's done in about 10 minutes, but boy is that a strong part. So you wet them with something here then you prop them. It could be something from Pink and Say; it could be a dialogue between the two soldiers. Today, for example, when we did Whitman study yesterday, he makes you feel like you hoped it was a dream he was assassinated and trying so hard to put his hand underneath the father who is Abraham Lincoln on the deck, and hoping if he shakes him or whatever that he will come to life and see everyone on the shores waiting for him to come in. He won; he emancipated… alright, today when I opened up Pink and Say and they saw where Pink has his arm

Andie Thoermer 10/1/13 6:16 PM
Comment [1]: Introducing new topics

Andie Thoermer 10/1/13 6:16 PM
Comment [2]: Questioning students

Andie Thoermer 10/1/13 6:16 PM
Comment [3]: Listening to students

Andie Thoermer 10/1/13 6:16 PM
Comment [4]: Teaching through illustrations

Andie Thoermer 10/1/13 6:16 PM
Comment [5]: holding student interest

Andie Thoermer 10/1/13 6:16 PM
Comment [6]: Switching instruction if disinterest

Andie Thoermer 10/1/13 6:16 PM
Comment [7]: Listening to student discussions

Andie Thoermer 10/1/13 6:16 PM
Comment [8]: reading classic literature above level

Andie Thoermer 10/1/13 6:16 PM
Comment [9]: studying classic poems

Andie Thoermer 10/1/13 6:16 PM
Comment [10]: Interconnecting reading instruction

Andie Thoermer 10/1/13 6:16 PM
Comment [11]: Discussing vocabulary

Andie Thoermer 10/1/13 6:16 PM
Comment [12]: Valuing vocabulary instruction

Andie Thoermer 10/1/13 6:16 PM
Comment [13]: Setting the stage

Andie Thoermer 10/1/13 6:16 PM
Comment [14]: Sharing content studied

around the fallen one that was so damaged... the first thing, that connection, Andrea, is all done. Do you remember? That's just like...I don't even get to finish half the time. They go back and bring in those pieces.

After that they're set in a whole group, a whole group and here's where the weavings begin. The children are told that "We're going to be studying this (Whatever it is), and at this part they break up. One group has a book discussion where they've already read a couple chapters and they're able to discuss; they do it all on their own. Overseeing, yes, but I also have to go where I have to go, so this group is just busily just gobbling up and keeping each other on task. It's almost like a peacock type thing. No...I'm bigger. So they'll just take off; they just need constant guidance, constant guidance so that humility stays strong. The group here, this group might be looking at a certain text, for example, when Abraham Lincoln tried to impart that knowledge about the Gettysburg Address we know where it's all going... "Give up, Confederates, it's over," right? It's not over yet. We still have a little more battling to do in Georgia and Florida; just a little bit, Sherman is going to come and destroy everything. But he was trying to employ all those people, so we try to do something for that middle group so they "get it" but again "four score and seven..." There is so much to do, research to understand that little bit of a passage, but it's going to be chunked. Now that group does all digestible bites, just a little, just a little, until they get the hang of whatever my hang is. Now this group over here, that's one, two, three groups. This group over here is where I'm doing everything that needs to be done.

Interviewer: They're all reading different texts?

Teacher: All... this is this, this is this, and these guys, I've got so much to do. This is I have to keep my data, running records. I have to keep saying "is her fluency increasing? Is her level of comprehension increasing? Is she able to use better vocabulary? Is this one being able to pick the right type of book? That group is all of this stuff that comes from your gut that can't be taught to you. It's just naturally... do you see that this one needs more help? Do you see that this one needs more help? It's possibly could be gang green. This infection is not going to go away... this blister... that's what it is, and this group is in dire need of my time more. This group cannot be left as much. They're not going to sit there and delve. They're not sure what you mean so they get more time, but it's fine because they don't want me [high group] and this group [middle group] is starting to be like that. So that block of time... roughly forty-five to sixty minutes because when they finish here I have to spend time with them to make them be held accountable [high group]. "We did cover that." Wow, you did that? You picked that up? Who did this one? Does that sound like "maurderer?" There's a maurderer. "We saw it somewhere." Isn't it weird that they're using a-u but it's still the same thing to robin and poets and whatever? Got to keep them accountable because if they think that they've got it, I have to show them how they need me. That's important, too; can't let them be bigger for the britches – can't make them feel, "We're reading this." Alright, no one's on the computer; no one is doing any AR work, any looking up what were some other... Leaves of Grass poems and Whitman's volumes; that's all done at home. The core curriculum states the child needs to be inspired enough to go on their own, without any guidance, and want to find more. That's what I get back the next day. "Did you know, Mrs. Buckner that..." That's what I get; I keep that also in my records – look who goes on their own and takes this... all you had to do tonight

was recite The Daffodils by William Wordsworth. Say it; jocken is about the hardest word in there. Jocken. Alright, did you read it? But what happened to it after you read it in front of that adult? Did that adult, most times, share… "I remember…" alright? The other thing is, critical in each group. Do you know the period of time? Very important that children know… "That was before; tell me what… Here today "In England they had to know about the jet stream and all the water or else Ireland or England would be glaciers, so we love all those marine animals, but that little jet stream keeps those warm waters keeps those from putting out glaciers, but did you know boys and girls that this is a part of Europe?" But I didn't ask it like that. How did I know where he's penning this poem? We'll it's not and there is the narrative recitation, so see how social studies… before I even go… all that is incorporated; it's a European country. Shall we call it England or Great Britain? All of that is discussed and that's before. The time now, the tying in, is the one part of my teaching, Andrea, that doesn't get justice because I feel like I've got to get to science. With that block of… have the skills of vocabulary been taught? Has proper grammar been addressed? Did you use that carefully, that colon, when you were lifting those things upon his ship, all of that? So at the end that…How did it go for you all? Tell me; come back. How about you? Do you want to share that author's sharing or that reader's workshop where you come back? And they, "Yes, we were able to understand text complexity today," and here it doesn't really happen much. My formatives are by listening and being able to see who's contributing and who's not, and then with the little prompts to the ones not listening lets me know where I need to teach again. The last thing I want to address…You were asking about the class? Yes. Some classes can handle things better than others. Their sensitivities must be noticed. You can't… when Danny just lost his Mom, I can't pick my next story Because of Winn Dixie. I can't go there right now. I need Danny to mature for months before I have the first story they pick is about a child who's been abandoned by a mom or the loss of a parent. So you have to be cognizant of that to relate to the students. The rest of it is just family. The kids encourage and support one another and that's just in any good classroom where the management is so tight that the kids don't want to not help each other or not be part of "look at her" and letting others shine.

Interviewer: I can feel it; I know it. So let me just look here quickly. Can you please tell me about the characteristics and attributes of the students at this time; during this time of the school year? How are the students similar, how are they different, and you can also think about that in terms of those specifically… just generally speaking, the reading specifically, and also how students have changed over the years. I know that you've been with the kids since third grade because you live with them, but if you'd like you can talk about the third grade; you can talk about them this school year – you know how they've changed and how did you come to these conclusions? How did you know that Johnny over here had these types of issues and now you know it's different? How did you come to that conclusion?

Teacher: In their third year, when they begin the third grade the parents are asked for them to privately trust me enough not to tell me that they enjoy soccer or that they have a really good singing voice, but to let me have three facts close to their heart that would help me be a better teacher for their child, and most of my parents really tell me things I need to know that would take longer to figure out. They're not attractive

things sometimes. Having that knowledge that first week after those have come back sets the stage. Any of them who are lacking confidence and never trust themselves, those are the first ones I go after, not as a predator, but to make sure that you are going to be supported and you can fail as much as you want but you will learn, and to have them gain a voice by December… So all of the recitations of poetry in third grade, all the patriotic tribute… in eleven days we're putting this on and memorizing these good old fashioned songs and you're part of something… You feel and you catch on to succeeding and achieving and it feels so good. With that being said, my class… I would speak with Mike Parrish every January and call to his attention these three or these four I'm concerned about; they've all had the same medicine given to them since August and these have all followed and come up and are starting to really come alive if they were shyer or not so sure of ever questioning me, questioning the teacher, asking for help… but these four still have sat back. Mike, can you share with me something that I could try to do that I could capture with your wisdom. You've been with these kids since kindergarten and a lot of times he would give me ideas to try to help these children, so I use his wisdom, Andrea, because he's running the school and he might just be able to help me rather than the second grade teacher who, according to the Rosenthal Effect, already has preconceived notions. Then, with my class, with that being said, this year I had an addition to looping as you said, but I also was given five new students. That was key as a teacher to make those five feel they weren't left out of all the private jokes that they don't know what we're talking about, so that was a HUGE change of making them immediately feel part of the family and that they also have a voice and that they can be heard just as equally as all the cats that have already had me. That took… that was the biggest challenge. This looping with the whole class is different than looping with, "Oh, we've all been here," and now we have the other children have joined our family. There's always that, "But she's really our mom." So what I've seen… I've really seen kids in this class because… in third grade the first thing that they're taught is sagacious and what it means to be sagacious. The second thing they're taught is self-reliance but every time they do something on their own they will feel so much better than being spoonfed. I will not help them. I will not help them to the point of tears, to the point of frustration until they try or I see them attempt to try to get to something and then of course I help. Their parents support me in that, though, so their parents don't bring back the folders, they don't bring the lunch, they don't bring the backpack. They let them have that whole day of "ugh" and it works because they are more accountable for their actions and their responsibility. With their reading all of that, if you didn't do the assigned reading that's your choice, you're just not privy to join us as we discuss it. No one likes to be in that catbird seat ever more than once. You just feel like you're not getting the hot cocoa; they're missing the treat – everyone else is having a good time so I love how that works. It's not mean-spirited; it's you make a choice, you didn't do it, you can't receive the same reward as they did. So what I've seen with my class, they've all stepped up. It's really tough, Andrea, to give them up with all the gains they've made, their confidence… mostly their confidence and they don't mind failing; there is nothing wrong with not understanding two digit into five digit; it's ok, but now they're getting it, so when I say, "How'd that go for you?" the majority of the class is strong and they're so well trained to immediately see who didn't get it and

they obviously try to help without me telling them. It's a self-directed feeling; they know what to do, and every day is different, and that's a key also with my style of teaching; you think it's going to be like this? It's not; I keep them on their toes. It's not a worksheet on their desk that they're waiting for, it's not a journal entry that they're going to write a prompt to; it's good God, what are we going to do at 8:32? Are you ready? Because there are three rules, and that's something I wanted to put in here. I don't know if it's one of your questions.

Andie Thoermer 10/1/13 6:16 PM	❌
Comment [47]: seeking parental help
Comment [48]: using parent info. at b.a.x
Comment [49]: supporting least confident first
Comment [50]: organizing gr. Activities to build confidence
Comment [51]: ensuring students experience success
Comment [52]: Seeking principal advice
Comment [53]: Not using previous year's teacher
Comment [54]: Looping with students
Comment [55]: Ensuring new students felt welcomed
Comment [56]: Challenging to include new students
Comment [57]: Teaching students to be sagacious
Comment [58]: Teaching self-reliance
Comment [59]: Working w parents to hold kids accountable
Comment [60]: Giving students choices
Comment [61]: Holding students accountable
Comment [62]: stepping up to the plate
Comment [63]: Expressing difficulty letting students go
Comment [64]: Explaining it's okay to fail
Comment [65]: Using peer support
Comment [66]: using self-directed learning
Comment [67]: Keeping students interested

Vision/Mission/ Teaching Philosophy

- Getting children to love reading –wanting "spark" to come for loving reading; "if they leave me loving reading, I feel successful" (121-126, int. 3); Sees authentic reading as important to reading growth and strategy instruction is key to this growth; Wanting work to be meaningful and relevant; creating life-long learners; instill love of reading by finding books they enjoy/like reading; pinnacle of teaching – Noah stated that "This reading thing is kind of fun." Need to know books kids read to help them choose appropriate books.
- Wanting kids to do well on FCAT and sixth grade – difficulties finding ways for helping most struggling students with skills tests/passages similar to FCAT; finding skills arbitrary (510-519 int. 1); Wanting kids to be successful on FCAT test – having difficulties teaching skills; understanding test-taking is different from reading
- Her goal is to help kids see where they are successful. Wanting students to be aware of their strengths and weaknesses so they can improve at own rate.
- Importance of being a life-long learner herself. Needing to understand children at all grade levels to know where they are coming from when she teaches older children so she had taught all grade levels several times. Loves all the changes in education – new ideas/trainings, etc.

Past Experiences

Mandated PD - Great training in previous county.
- Being trained to use various programs at past schools. Wanting to know research behind practices taught – needing to see it work for students
  - Project Child – center-based; worked closely with colleagues/team; taught the importance of borrowing from others
  - Success for All (4 years) – fast paced and scripted and not enjoying scripted nature of program,
  - basal and workbooks
- Becoming design coach for America's Choice – being told why certain practices are important.
  - receiving cart of books to read
    - Reading literature about teaching reading strategies (87-88, int. 1)
    - Fountas and Pinnel – RW; Stephanie Harvey – strategies; Debbie Miller; Reggie Routman
    - Writing – Ralph Fletcher and Katie Wood Rae
    - Vocabulary – David C. Cooper, Tim Rasinski; Colleen Bears
- Receiving additional training as district literacy coach
- Learning RW framework provided way for her to differentiate her instruction and pull from all the different programs the strategies she found to be effective. She chose the best practices to use with students from trainings.
  - RW framework influenced by literacy coach who had success (Guskey) with her third grade students passing FCAT. Only teacher who had 2 fail in class and she knew the two who may not pass back in December. Over 40% didn't pass.
  - Realizes she can now truly explain what a child is having difficulties with during parent conferences because not relying on workbooks and grades (164-172 int. 1) → shooting blanks up until this point. Can finally help individual child.

Environmental Conditions

State and District Policy	School Context
• District - Using scope and sequence of adopted core reading program to drive instruction (49-55 int. 4). • State - Using standards to help guide instruction – seeing the developmental nature of why certain skills and strategies are needed at certain grade levels (e.g., periods and first grade). Teaching 1½ hrs. of LA. Not many students in RtI - teaching RtI according to school policy when in previous schools (a lot of RtI in 1st grade) – not crazy about all the assessments that had to be completed – schools needing "proof". Not teaching CCSS, but knows Common Core will be very different than standards/reading series now.	• Working closely with ESE teacher when having more ESE students (22-27, int. 4) • Using interns to help with lower level students (28-34, int. 4) • Working with and borrowing from team members improves practices. Learned how team dynamics can impact learning – working well with team but not meeting as much as she would like. Enjoys team teaching and collaborating and reflecting with the team teacher (179-183, int. 4) • Principal focused on experts in school to provide PD - More school-based PD using experts in building. Holding PLCs, sometimes sending teachers to conferences, and allowing teachers to take TDE. Provided WOW Wednesday trainings once a month with grade level. • Limited PD with current county (served on Reading Cadre last year, but not effective). If county provided teachers with a large classroom rather than a basal, then training would be needed to teach teachers how to select texts to meet their students' needs. It is important to teach educators the nuances of texts at the different levels, especially lower grade levels.

Assessment

Beginning of the Year:
  - Writing assessment - write straight for five min. – compare with journal writing throughout year to gauge progress
  - Administering DRA (broad picture of reading skills) – reading level
  - Interest inventories - gauge student interest
Referenced all year:
  - District assessments – Thinklink
  - Reading journals - Reading students' response journals to see thinking – very impactful. Best student writing came from reading aloud book with good character development (115-120 int. 2).
  - Florida Focus tests – selection tests are an "evil necessity" – kids need to know how to take them

Key Factors Considered When Differentiating Reading Instruction

Teaching Philosophy

Teaching Context

Analysis of Data

Types of Assessment

Formal
Informal
Organic

Outcomes of Assessment

- Student Interest
- Student Reading Level
- Student Academic Identity
- Student Reading Skill Knowledge
- Student Background Knowledge
- Student Instructional Preferences

Nature of Differentiated Reading Instruction

Content
- NGSSS/CCSS Focus

Process
- Instructional Practices
- Materials

Product
- Organic evaluation
- Informal evaluation
- Formal evaluation

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BIOGRAPHICAL SKETCH

Andrea Lauren Thoermer is from Ohio, and is one of four children of Mike and Catherine Kauffman. She received her PhD in Curriculum and Instruction with specializations in Reading Education and Curriculum, Teaching and Teacher Education from the School of Teaching and Learning of the College of Education at the University of Florida in the fall of 2013.

Andrea spent her formative years in Smithville, Ohio. She graduated from Smithville High School in June 1999. She subsequently earned a Bachelor of Arts degree in Elementary and Deaf Education from Flagler College, and graduated with Honors in April 2003. Upon graduating, she accepted a third grade teaching position in Ponte Vedra, Florida at Ocean Palms Elementary where she taught for seven years. She spent the last two years of her teaching career pursuing her master's degree in literacy from the University of North Florida and also attained National Board Certification. In August 2010, she began the PhD program at the University of Florida.

Andrea is a peer-reviewed published author in the field of Reading Education, having a practitioner-oriented article published in *The Reading Teacher,* a book review in *Critical Teachers in Teacher Education,* and several other articles in preparation and under review. She has presented her scholarship at numerous local, state, national and international conferences, including the International Reading Association, Association of Teacher Educators Conference, and Literacy Research Association Conference. While in the doctoral program at the University of Florida, she taught eight different online and face-to-face courses for her department in reading education.

Andrea is married to Jim Thoermer, and has accepted a position as a coordinator in the Office of Student Learning with a non-profit organization, Step Up for Students. In

the organization, she provides professional development to private schools in Northeast Florida. She also teaches several literacy courses as an adjunct instructor at the University of North Florida and Jacksonville University, both located in Jacksonville, Florida.