One Teacher's Instructional Adaptations and Her Students' Reflections on the Adaptations

Seth A. Parsons
George Mason University

Margaret Vaughn
University of Idaho

ABSTRACT

Currently, much debate exists nationally regarding how to define and measure teacher effectiveness. Educators and researchers agree that adaptability is an important aspect of teacher effectiveness. Teachers must adapt their instruction to navigate the complexity of classroom instruction. However, little research has specifically examined teacher adaptations. Building upon beginning efforts to document teacher adaptations, this study examines one teacher's adaptations, her reflections on her adaptations, and her students' reflections on adaptations. Students' reflections on adaptations have the potential to provide insight into the effectiveness of teachers' adaptations. This case study provides empirical evidence illustrating the complexity of classroom instruction and the knowledge this teacher used to navigate this complexity. Student reflections demonstrated that they generally found the teacher's adaptations helpful.

INTRODUCTION

"Classrooms are highly dynamic, constantly changing, ill-structured, and characterized by concurrent interactions between multiple factors that combine inconsistently across case applications of the same nominal type."

— Eilam & Poyas, 2006, p. 337

As Eilam and Poyas (2006) explain, teaching is complex. Teachers who are effective in this complex and unpredictable context are adaptive (Corno, 2008; Gambrell, Malloy, & Mazzoni, 2011; Parsons, 2012; Vaughn & Parsons, 2013, Vaughn, Parsons, Gallagher, & Branen, in press). Effective teachers constantly monitor students' understanding and adjust their instruction accordingly (Allington & Johnston, 2002; Williams & Baumann, 2008). For example, Duffy and Hoffman (2002) stated, "Instruction is a complex orchestration of techniques and materials that teachers creatively adapt from one instructional situation to another. Glossing over this complexity is misleading"

(p. 385). Researchers have described this characteristic as "the teachable moment" (Glasswell & Parr, 2009), "reflection-in-action" (Schön, 1983; Zeichner & Liston, 2014), "improvisation" (Sawyer, 2004), "adaptive expertise" (Darling-Hammond & Bransford, 2005), "adaptive metacognition" (Lin, Schwartz, & Hatano, 2005), and "bricolage" (Reilly, 2009). Nevertheless, little research has specifically studied how teachers adapt their instruction or teachers' reflections on adaptations (Fairbanks et al., 2010).

Recently, researchers have begun investigating these phenomena in classroom-based research. Our research team designed methods for documenting teachers' adaptive instructional moves and their reflections on adaptations (Allen, Matthews, & Parsons, 2013; Duffy et al., 2008; Parsons, 2010, 2012; Parsons & Vaughn, 2013; Parsons, Williams, Burrowbridge, & Mauk, 2011; Vaughn, 2014; Vaughn & Parsons, 2013). Identifying adaptations through observations, we defined an adaptation as a teacher action that was a response to an unanticipated student contribution, a diversion from the lesson plan, or a public statement of change. For example, in a reading conference, a teacher noticed that the student did not understand the concept of inferring. She adapted her instruction by providing a mini-lesson on inferring, defining the strategy and modeling it by reading his text and thinking aloud (Parsons, Davis, Scales, Williams, & Kear, 2010). In post-observation interviews, researchers verified that adaptations were spontaneous instructional changes and if verified ask the teacher, "Why did you make that change?" to capture her reflection on the adaptation. These studies provided a foundation for studying teacher adaptations. This research agenda uses multiple cases studies to document teachers' instructional moves. Accordingly, replication in different contexts will strengthen the validity of the findings and uncover additional understanding of the complexity of classroom instruction (Merriam, 2009; Miles & Huberman, 1994; Yin, 2009).

Specifically, one perspective that has not been studied in this area of research is students' interpretations of teacher adaptations. Although researchers suggest that adaptive teaching builds student understanding (Corno, 2008), few studies have examined this intuitive link. Classroom studies highlight the dialogic talk between teacher and students (Boyd, 2012; Mercer, Dawes, & Staarman, 2009), but few studies examine, from students' perspectives, teachers' instructional moves and whether such actions inform or deter from student learning (Craig, 2009). As such, the study reported here was exploratory in nature, examining classroom interactions within a sixth grade classroom highlighting one teacher's instructional actions. Six focal students participated in the study to reflect on this teacher's instructional adaptations. The following research questions guided this study:

(a) What adaptations does this teacher make to her instruction and why?
(b) What are students' reflections on instructional adaptations?

This research is particularly important in the current educational landscape where conceptualizations and measures of teacher quality are prominent and debated (Danielson, 2011; Garrett & Steinberg, 2015; Kane, McCaffrey, Miller, & Staiger, 2013; U.S. Department of Education, 2009). It is widely accepted that effective teachers are responsive, flexible, and adaptive (Corno, 2008; Darling-Hammond & Bransford, 2005; Fairbanks et al., 2010; Pearson & Hoffman, 2011). Therefore, it is important to empirically document what adaptive teaching looks like and how students respond to teachers' instructional adaptations. This study replicates previous case studies within this research agenda. By using the same procedures in multiple classrooms in various contexts, we are building an understanding of what this aspect of effective teaching entails, and this particular study also documents students' reflections on adaptations, a perspective that is missing in the research literature.

THEORETICAL PERSPECTIVE

Social constructivism and metacognition inform this study. Social constructivism maintains that individuals actively construct knowledge through interactions with others within a specific context (Vygotsky, 1978). Accordingly, social interactions are central to understanding how learning takes place in the classroom. Related to this study, then, the unplanned instructional interactions between teacher and student, which are commonplace in classrooms, can substantially impact student learning. Moreover, the Zone of Proximal Development (ZPD) and scaffolding are key constructs within social constructivism. ZPD represents the zone just beyond what an individual can accomplish alone. Scaffolding is the support that allows individuals to succeed within their ZPD. Adaptive teaching is one form of scaffolding. In the midst of teaching, teachers often make adaptations to their instruction to scaffold students' understanding. In addition, social constructivism informed this research because it took a contextualized view of one teacher's instruction. In this way, classroom interactions were examined from both the teacher's and the students' perspectives.

Metacognition is an awareness of one's own thinking and the regulation of one's actions based upon that awareness (Flavell, 1976; McCormick, Dimmitt, & Sullivan, 2013). Teachers are metacognitive as they implement instruction, monitor student progress, and adjust their instruction based upon this monitoring (Duffy, 2005; Duffy, Miller, Parsons, & Meloth, 2009; McCormick et al., 2013; Thomas, 2012). Historically, teacher effectiveness has been associated with procedural actions by teachers: e.g., well-managed classrooms with routines, direct instruction with independent practice (Brophy & Good, 1986). However, more recent conceptualizations of teacher effectiveness have recognized the complexity of classroom instruction and the necessity for an effective teacher to be adaptive (Darling-Hammond & Bransford, 2005; Duffy, 2005). To be adaptive, teachers must be metacognitive. For example, Duffy and colleagues (2009) explain that effective teachers are metacognitive, making "adaptive decisions as they teach because the unpredictability of the classroom and the nature of students' learning means that teaching can never be completely routinized" (p. 246).

Similarly, students are metacognitive in that they are aware of their thinking. There is extensive research and theory related to student metacognition: what it is, how it impacts learning, how it is developed, and how it is measured (Hacker, Dunlosky, & Graesser, 2009; McCormick et al., 2013; Israel, Block, Bauserman, & Kinnucan-Welsch, 2005). However, those aspects of student metacognition are beyond the scope of this study. Research and theory on metacognition related to this study tell us that individuals are aware of their thoughts and that individuals use this awareness to guide their actions (McCormick et al., 2013).

METHODS

The present research used an instrumental case study design, which allows for an in-depth investigation of real-world phenomena within a specific context (Stake, 2006). Instrumental case studies focus on phenomena—in this case, adaptive teaching—rather than the case itself (Stake, 2000). The current study explored the phenomenon of adaptive teaching within the context of a sixth-grade classroom.

PARTICIPANTS AND SETTING

This sixth-grade classroom is in a Title I elementary school located outside a major urban city in the mid-Atlantic region of the United States. A large proportion of the students in this school are learning English as a second language (76%), and a majority

(83%) qualifies for free or reduced lunch prices. The classroom in which this study took place included 21 students, and the demographics matched that of the school population.

The participants in this research are the classroom teacher and six purposefully selected students. The teacher, Ms. Hood (pseudonym), was in her sixth year teaching. She was initially recommended to the researcher by the administration as a thoughtful, effective teacher. The researcher subsequently worked closely with her, observing in her classroom and collaborating with her on teacher preparation activities, and made the same assessment as her administrators. At the beginning of the study, Ms. Hood recommended two low-, two average- and two high-performing students. All six students were of minority descent (two Middle Eastern students, three Hispanic students, and one African-American student). A boy and a girl were recommended for each level.

DATA COLLECTION

The data collection processes for this research were built upon our previous work on teacher adaptability (Allen et al., 2013; Duffy et al., 2008; Parsons, 2010, 2012; Parsons, Davis et al., 2010; Parsons, Massey et al., 2010; Parsons & Vaughn, 2013; Parsons et al., 2011; Vaughn, 2014; Vaughn & Parsons, 2013). Our research team developed data collection and analysis procedures: observations to document teachers' instructional adaptations and interviews to confirm adaptations and to obtain their reflections on adaptations (Duffy et al., 2008). Within this research agenda, adaptations are operationally defined as a teacher action that is a response to an unanticipated student contribution, a diversion from the lesson plan, or a public statement of change (Duffy et al., 2008). To verify whether or not observed adaptations were unplanned, the researchers asked teachers, in post-observation interviews, if the identified instructional adaptation was a spontaneous change. In these interviews, researchers also asked teachers why they adapted as they did. These data collection procedures, which hinge upon teachers' metacognition, have been used in each of the case studies in this research agenda. In the following paragraphs, each of these data sources is discussed related to the study presented here.

Lesson plans. Prior to each observation, the lead researcher collected the teacher's lesson plan. Lesson plans were reviewed to identify (a) the lesson objective, (b) the focus of the lesson, and (c) the instructional activities included in the lesson. Lesson plans allowed researcher to know the teacher's planned instruction. Hence, these plans were instrumental in identifying adaptations during observations.

Observations. Beginning in January and ending in April, the lead researcher conducted 10 observations of the teacher's literacy instruction (one per week with interruptions due to testing and other scheduling conflicts) for a total of approximately 13 hours of observed instruction. The literacy instruction in Ms. Hood's sixth grade classroom across the observation period was organized around writing units. She implemented a unit on personal narratives and a unit on poetry. Within these units, she embedded reading and writing instruction. For example, the poetry unit included mini-lessons on comprehension, poetic devices, and descriptive language. Additionally, Ms. Hood consistently implemented guided reading, independent reading, and independent writing throughout both units.

During observations, the researcher recorded notes of classroom proceedings, including student and teacher dialogue and the types of tasks assigned to students to capture the general social context of the classroom. However, the focus of observations was the adaptations the teacher made, which were identified based upon the research team's operational definition for an adaptation (i.e., a teacher action that is a response

to an unanticipated student contribution, a diversion from the lesson plan, or a public statement of change).

Teacher interviews. Following each observation, the lead researcher interviewed the teacher for a total of 10 interviews. In the teacher interviews, the researcher explained each observed adaptation and asked Ms. Hood if it was, indeed, unplanned. If the adaptation was confirmed, the researcher asked, "Why did you make this adaptation?," to obtain the teacher's reflection on adapting as she did.

Student interviews. The lead researcher interviewed three students following each observation: one low-, one average-, and one high-performing student. In the next observation, the other low-, average-, and high-performing students were interviewed. In these individual student interviews, the researcher referred back to each teacher adaptation and asked if that instructional action changed the way s/he worked on the assignment, following up with, "How?," if the student responded positively.

Some adaptations this teacher made occurred when she was working with individual students or with small groups. Student reflections were not documented for adaptations that did not include a student participant. Both teacher and student interviews were conducted on the same day as the observation, and all interviews were audiotaped and transcribed for analysis.

DATA ANALYSIS

The researchers analyzed these data using the recommendations of Miles and Huberman (1994). The researchers reduced the data by pulling out each documented and verified adaptation and displayed it in a chart followed by the accompanying reflections by the teacher and the students (see Appendix for an example). The researchers then used these displayed data to draw conclusions, using the standards of qualitative analysis (Merriam, 2009) and case study methods (Yin, 2012) to answer the research questions. These procedures allowed us to pull out the data that were relevant to our research questions. For example, within the observation notes there was much information that was useful for contextualizing the study as a whole but was unrelated to the research questions. Reducing the data in this way allowed us to display the data to see connections between teacher adaptations and students' responses to adaptations.

FINDINGS

During the 10 observations, Ms. Hood made 25 adaptations to her instruction. Her reflection was documented for each of the adaptations. Eighteen student reflections were documented for 10 of the 25 adaptations. The next section includes an overview of Ms. Hood's typical instruction followed by a case description that illustrates how she adapted her instruction, her reflections on her adaptations, and her students' reflections on adaptations.

Ms. Hood's literacy instruction was generally guided by an overarching task. For instance, in most of the examples below, the overarching activity was writing personal narratives about a time that changed their lives. Lessons typically began with a whole-class lesson, followed by students working on the overarching task. As students worked, she pulled guided reading groups and conferred with individual students about their work. The following classroom episodes were selected to illustrate the intentional thought Ms. Hood described in her reflections on instructional adaptations and students' reflections on these instructional moves.

In one observation, Ms. Hood taught a lesson on visualizing. She asked students to write down what they visualized as she read the text aloud. She noticed students had difficulty, so she says, "Let me model it for you." She then reread the passage, thinking aloud: "I think about how it feels in his hand, but it also takes me back to

something from my experience." She wrote on the board: *Seagulls flying over my head, squawking, swooping down to steal my food*, explaining, "It doesn't say this, but this is what comes to MY mind when I read it. That is what my mind pictures when I read it." In the post-observation interview, Ms. Hood reflected on this adaptation: "I realized that they just really don't get why they visualize and what visualization is." So she tried "to connect and draw on their background knowledge to make those visualizations."

In this scenario, Ms. Hood realized the students were struggling with the task, and she adapted her instruction by modeling her thinking for students. She further stated, "so I kind of shifted and just thought, you know, we'll keep a more open approach to them just kind of seeing why we visualize, how it makes things better." In keeping with a "more open approach," she was able to demonstrate the strategy of visualizing and how readers make connections to their personal experiences to aid in comprehension of the text. In doing so, Ms. Hood adapted to make the strategy of visualization more concrete for her students. Students reflected on the ways in which this adaptation related to their understanding of the instructional task. Consider students' reflections on this adaptation, which are presented in Table 1.

Table 1

Students' Reflections on one of the Teacher's Adaptations

Student 1 - Low Performing

Researcher: Did that change the way that you worked on this?

Student: Yeah.

R: How so?

S: What do you mean?

R: How did it change the way you worked on it?

S: Because it was easier and she told us what she wanted us to do.

R: Do you think you will ever use this again?

S: Yeah.

R: When.

S: College.

R: Maybe in college? Why do you think you might use it in college?

S: Because if you want it depends who you want to be. You might have to see (inaudible).

R: Can you think of any jobs that might require you to do that?

S: Chef.

Student 2 - Average Performing

S: [when the teacher did that] it was, like, it made it easier.

R: It made it easier? Why?

S: Because at first I didn't really know what to do. And now, like, I know.

R: Do you think you'll ever use this again?

S: No.

R: No? Why not?

S: Um (long pause) because (long pause).

Student 3 - High Performing

S: Yeah, because she said it in a way, not the way in the, in the passage. She said it in her own words, not in what they said. So that made me think that I have to do my own way of writing it not in the passage.

R: So before she did that you really didn't know what you were supposed to do?

S: Uh, hum.

R: And then that helped you? So, do you think you'll use this again?

S: Yeah, um.

R: How?

S: Um, use this um, like what do you mean?

R: Visualizing as a strategy. What are you going to do…in the future?

S: Oh, yeah, in books while I'm reading so that I can more clearly visualize it more and when I read a book.

As each student reflection indicates, there was varying understanding that developed as a result of this instructional adaptation. For example, Student 1 shared that "it was easier when the teacher told us," which suggests that this particular adaptation may have caused the student to see the connection to the instructional task by the adaptation she provided. Student 2 shared in her reflection that the adaptation, in fact, served as a scaffolding technique, helping her to make the necessary connections to perform the instructional task. Conversely, Student 3 was able to take the instructional adaptation, view what the teacher had done, and then make the link to how she could apply the specific instructional strategy to her own learning as she stated, "So that made me think that I have to do my own way of writing it not in the passage." These varying interpretations of the same instructional adaptation suggest that students are making sense of and understanding the teachers' instructional adaptations. Moreover, Ms. Hood's modeling in this instructional adaptation supported students' understanding of the task at hand and their understanding of visualizing as a reading strategy.

In another observation, students wrote personal narratives about a time that changed their lives. As students began writing, Ms. Hood helped one of the low-performing focal students to get him started: "What is something that has changed the way you think or act?" She adapted her instruction by stating, "Let's think small. What has helped you do a better job this year? Let's jot down some starting points. All you have to do is jot down some ideas and then I'll come back and help you." Because Ms. Hood knew the strengths and weaknesses of this particular student, she introduced this scaffold of breaking the task into smaller, more manageable tasks in order to promote student learning. The student perceived this adaptation as helpful: "After she gave ideas, then I just jot, wrote the story really quick." Consider how Ms. Hood reflected on this instructional move: "I could see that he wasn't going to get started right away, so I wanted to kind of give him some time."

In this same observation, Ms. Hood adapted her instruction often as she monitored and conferred with students. One student was off task, and Ms. Hood stopped by his desk and said, "I'm going to come back in five minutes and see what you've come up with. Deal?" Conferring with another student, she stated:

> I would like to see you really show something special. I feel like you always do things just to get them done. I think there are some moments that really affected you. This is your opportunity to really shine. We're going to share these. I want them to leave thinking "Wow." I want you to start with three or four moments and then we can pick from these. You're very smart about the world around you.

Therefore, Ms. Hood adapted by providing scaffolds to get struggling learners started with their writing, first by helping a student regulate his work with accountability and a time frame ("I'm going to come back in five minutes"), and then by boosting a student's confidence in his work ("This is your opportunity to really shine").

Another adaptation that occurred in this same observation was with a student who was out of the room and missed the introduction to the lesson. Ms. Hood adapted her instruction by discussing with the student how writing can be a good escape for her: "What are some things from your life that made you look at things from a different way. The fish thing was good, but I think you can go deeper. I want you to jot down some ideas." Ms. Hood was challenging the student to reflect on her life and what she wants to write about. The teacher's reflection showed that she was thinking deeply about how to support this child:

> Yeah, she's a really emotional child—like beyond emotional—and as emotional as she is, she never talks about it. And it creates a lot of issues for her, and I think writing

could be a release because she just doesn't want to talk to people about it. Part of it, I think, is because she just starts crying as soon as she talks, so it's not that she doesn't want people to hear her, but I think she just doesn't want to have to say it. So I think writing could be a really good thing for her long term. So I wanted her to think about something in her life instead of just giving me the bare minimum.

This reflection reveals that Ms. Hood knew her students well and adapted her instruction to support not only their immediate educational needs but also their long-term wellbeing.

In a guided reading lesson, a low-performing ESL student read aloud to Ms. Hood. The student misread "jungle" for "jingle." Ms. Hood adapted her instruction by focusing the student's attention on meaning: "So let's look at this word. It looks just like jungle, but let's look at the words around it. 'He sang a little jungle.' Does that make sense?" She then defined the word for the student with an example: "A jingle is like 'I'm loving it' [a current McDonald's jingle]. It is a little, short song." She provided the following reflection on this adaptation:

It just shows you how important the new vocabulary is because sometimes I pick out basic new vocabulary and I really don't always want to pull out the new vocabulary for them. I want them to kind of start to be aware because they get in such a bad habit of just skipping words that they don't know and just figuring, "I don't know it, so whatever." So, I don't like to always bring attention to every single word they don't know…So I didn't give them that one, and I thought it was there contextually, so it was a good example. When he showed that he was confused, it was a good thing to kind of go back to talk about it.

This reflection demonstrates how thoughtful Ms. Hood was in planning her instruction. She considered the students' general actions in approaching unknown words, her goals for her students, and the context in which potential vocabulary words occur in the text. Despite this thoughtful planning, she had to adapt her instruction based upon the student's reading. Nonetheless, this student did not reflect positively about this adaptation. When asked if it was helpful, he responded, "I don't know."

In another observation, the whole-class lesson focused on hyperbole. After an introduction, the students created their own examples of hyperbole regarding a recent snowstorm. One student shared an example in which she compared the wind during the storm to a tornado. Ms. Hood adapted her instruction to illustrate the importance of knowing your audience: "And that's your audience. If you're talking to people in Oklahoma, you might compare it to tornados." She then related it to their own lives: "If you're talking to people in your home countries, what would you compare it to…Right, you have hurricanes." She reflected,

They just were describing wind, and I just thought it was interesting that they picked tornado. So I thought it was a good time to point out an audience. Sometimes things I'm going to teach later I just try to take chances when I can so they could use it, so they start hearing it, and then it's a little more familiar when they learn it the first time.

In this adaptation, Ms. Hood saw an opportunity to make connections among content. The focus of the lesson was on hyperbole, but a student example exposed an opportunity to discuss audience, which the teacher knew was coming up in the curriculum. The high-performing student did not really understand the point of the adaptation. When asked how it changed her thinking, she replied, "Like, she's kind of like adding more description or something."

In the same observation, Ms. Hood conducted a reading conference with a struggling reader: "I want to see you read and think." The student began reading aloud. Ms. Hood asked, "What does this title tell you?" The student did not respond, so she adapted her instruction: "So let me show you how I would read this [nonfiction book with each chapter about a soccer player]. I would go through and find a player that I want to read about, not every single one of them." She discussed how to read nonfiction: "You can go to the Table of Contents and pick: 'What am I most interested in reading about today?'" Her reflection was as follows:

> The book is hard for him. But it's a topic he's so interested in, and I want to give him a chance to read that. And he knows some of the words because he's so familiar with soccer, like "Barcelona," he knew how to say "Barcelona." I mean that's not a typical word to be able to read. So I wanted to give him a chance to read it, and then also for his attention span, it might be even more fun to get him to skip around the book. And a lot of our kids don't know that with nonfiction you just skip around.

In this example, Ms. Hood supported a struggling reader. She found a book that was likely to be of high interest to the student and then adapted to model how to approach a nonfiction text.

In a different observation, the lesson focused on descriptive language. Groups had an object, and they created descriptive language to describe it. Groups shared what they came up with. One group's object was a candle. The students described the candle as, "It smells good." Ms. Hood adapted her instruction asking a student, "What's your favorite smell?" and then another student. After the students responded, she said, "If you just say, 'It smells good,' to [R] that means grass. To [A] that means cookies. So we need to be specific." She reflected, "This has been a yearlong battle that I'm really trying to get them to be descriptive, and I always say using sixth-grade words, moving out of this very simplistic way of writing." Ms. Hood adapted her instruction to illustrate that they were not being specific in their descriptions.

Students' reflections on this adaptation were mixed. The low-performing student understood the point of the adaptation: "Like you have to be more specific." As did the high-performing student: "When she said that anything can smell good that made me think that I had to be more, more specific in what I write because anything can smell good." However, when asked if this adaptation changed the way he worked on the assignment, the average-performing student simply responded, "No."

DISCUSSION

Researchers have asserted that classroom instruction is complex, and effective teachers need to adapt their instruction to navigate this complexity (Corno, 2008; Darling-Hammond & Bransford, 2005; Duffy & Hoffman, 2002; Gambrell et al., 2011; Parsons, 2012; Vaughn & Parsons, 2013; Vaughn et al., in press). However, little research has explicitly studied how teachers adapt their instruction or their reflections on adaptations (Duffy et al., 2009; Fairbanks et al., 2010). This study used observations and interviews to document one teacher's adaptations and her reflections on her adaptations. This study also used student interviews to document students' reflections on adaptations: if the teacher's adaptations changed the way they worked on the assignment.

Using the lens of adaptive teaching, this study further illustrates the unpredictability of classroom instruction that results from teacher and student interactions and the metacognitive thought required of teachers in navigating this complexity. Ms. Hood's class included students with diverse backgrounds, varied levels of English language

proficiency, and a wide range of reading ability. She designed her instruction to provide differentiated support to meet these diverse needs. She frequently implemented small-group instruction and one-on-one instruction to provide targeted support.

Within this instructional design, Ms. Hood was metacognitive, monitoring students' reactions and progress and adapting her instruction accordingly (Duffy et al., 2009; McCormick et al., 2013). For example, she often modeled strategies for students when they displayed confusion. In a whole-class lesson on visualizing, she adapted by modeling her visualization to students. In an individual conference with a struggling reader, she modeled how to approach a nonfiction text. Her adaptations also frequently challenged students. In a guided reading lesson, the teacher challenged students to be thoughtful, strategic readers rather than just focusing on one aspect of reading. In individual writing conferences with students, she challenged them to think deeply about their writing topic. She adapted her instruction to poignantly illustrate a key concept: Writers have to be specific in their descriptive language because different readers can interpret generalities in different ways.

Moreover, Ms. Hood's adaptations illustrate a deep knowledge of her students. In a writing conference with a particularly emotional child, she encouraged the student to use writing as an outlet. This adaptation was based upon her knowledge of this student and her desire for her to effectively cope with difficulties throughout her life. Other adaptations were slighter. For example, she adapted to an off-task student by reminding him of the task and telling him that she will return in five minutes. This minor action was a productive way to redirect this student's work and support the regulation of his work. Therefore, Ms. Hood adapted her instruction in various ways. She also adapted in a variety of instructional formats: Adaptations occurred in whole-class lessons, small-group lessons, and during individual conferences with students.

This study also strove to document students' reflections on the teacher's adaptations. In general, students perceived adaptations to be helpful; however, this finding was certainly not universal. The whole-class adaptations were the most insightful because the researchers could document all three students' reflections. For example, all three focal students viewed the teacher's modeling of and thinking aloud about visualizing as helpful. Likewise, two of the three focal students found the teacher's adaptation during the descriptive language activity to be helpful. There were other times, though, when students candidly stated that the adaptation was not helpful. Also, occasionally student responses illustrated that they did not understand the adaptation.

Obtaining student reflections on teacher adaptations proved to be methodologically difficult. Focal students were often not involved in the instruction that was adapted (e.g., an individual conference or a guided reading group). Future research must carefully consider participant selection and methods used to document student thinking about teacher actions. For example, including all the students in the class would be one way to address this difficulty, but this raises pragmatic issues for whole-class adaptations (i.e., it would be difficult to interview 21 students following an observation). Therefore, as with all research, important and difficult design decisions need to be made. Nonetheless, this exploratory study provides a beginning for studying students' reflections on teachers' instructional adaptations and provides insight into this important aspect of instruction.

SIGNIFICANCE OF FINDINGS

This study is significant, first, because it acknowledges and honors teachers' and students' voices—voices that are too often left out of conversations about reform (Craig, 2009). In this study, we learned from a teacher's actions and words as well as her students' reflections what types of adaptations are associated with effective instruction.

National conversations about effective instruction are currently ubiquitous because it is clear that the teacher is the most important in-school factor influencing student achievement (Craig, 2009; Darling-Hammond, 2003). However, there is much debate about how to conceptualize and measure teacher quality (Danielson, 2011; Garrett & Steinberg, 2015; Kane et al., 2013; U.S. Department of Education, 2009). While there is agreement that effective teachers are adaptive, there is little consensus, or even understanding, regarding what adaptive teaching entails (Duffy et al., 2009; Fairbanks et al., 2010).

The research agenda our team has put together has used qualitative methods in multiple case studies to demonstrate what adaptive teaching looks like in classrooms. The study reported here presents characteristics associated with adaptive teachers (i.e., they are metacognitive, they know their students well, and they differentiate their instruction). This study also builds upon our previous research agenda by documenting students' reflections on one teacher's adaptive instructional moves. Our findings in this regard were mixed but trended positive.

Our findings suggest that through adaptations and by listening to how students respond to teachers' instructional actions, classroom spaces can become what Craig (2009) describes as porous, where teachers are able to balance instructional mandates, beliefs of instruction, and their students' interests, cultures, and instructional needs into the classroom. Continued research on teacher adaptability should explore more fully these complex classroom spaces to examine how instructional adaptations can provide these porous openings for both students and teachers. This study provides a foundation for future study of teacher adaptation and its relation to student learning. ∎

REFERENCES

Allen, M. H., Matthews, C. E., & Parsons, S. A. (2013). A second-grade teacher's adaptive teaching during an integrated science-literacy unit. *Teaching and Teacher Education*, *35*, 114-125. doi:10.1016/j.tate.2013.06.002

Allington, R. L., & Johnston, P. (2002). *Reading to learn: Lessons from exemplary fourth-grade classrooms.* New York, NY: Guilford.

Boyd, M. P. (2012). Planning and realigning a lesson in response to student contributions: Intentions and decision making. *Elementary School Journal*, *113,* 25–51. doi:10.1086/665817

Brophy, J., & Good, T. L. (1986). Teacher behavior and student achievement. In M. C. Wittrock (Ed.), *Handbook of research on teaching* (3rd ed., pp. 328-375). New York, NY: Macmillan.

Corno, L. (2008). On teaching adaptively. *Educational Psychologist, 43,* 161-173.

Craig, C. J. (2009). The contested classroom space: A decade of lived educational policy in Texas schools. *American Educational Research Journal, 46*, 1034-1059. doi:10.3102/0002831209334843

Danielson, C. (2011). *Enhancing professional practice: A framework for teaching.* Alexandria, VA: Association for Supervision and Curriculum Development.

Darling-Hammond, L. (2003). Keeping good teachers: Why it matters, what leaders can do. *Educational Leadership, 60*(8), 6-13.

Darling-Hammond, L., & Bransford, J. (Eds.). (2005). *Preparing teachers for a changing world: What teachers should learn and be able to do.* San Francisco, CA: Jossey-Bass.

Duffy, G. G. (2005). Developing metacognitive teachers: Visioning and the expert's changing role in teacher education and professional development. In S. E. Israel, C. C. Block, K. Bauserman, & K. Kinnucan-Welsch (Eds.), *Metacognition in literacy learning: Theory, assessment, instruction, and professional development* (pp. 299-314). Mahwah, NJ: Erlbaum.

Duffy, G. G., & Hoffman, J. V. (2002). Beating the odds in literacy education: Not the "betting on" but the "bettering of" schools and teachers. In B. M. Taylor, & P. D. Pearson (Eds.), *Teaching reading: Effective schools, accomplished teachers* (pp. 375-387). Mahwah, NJ: Erlbaum.

Duffy, G. G., Miller, S. D., Kear, K. A., Parsons, S. A., Davis, S. G., & Williams, J. B. (2008). Teachers' instructional adaptations during literacy instruction. *Yearbook of the National Reading Conference, 57*, 160-171.

Duffy, G. G., Miller, S. D., Parsons, S. A., & Meloth, M. (2009). Teachers as metacognitive professionals. In D. J. Hacker, J. Dunlosky, & A. C. Graesser (Eds.), *Handbook of metacognition in education* (pp. 240-256). Mahwah, NJ: Erlbaum.

Eilam, B., & Poyas, Y. (2006). Promoting awareness of the characteristics of classrooms' complexity: A course curriculum in teacher education. *Teaching and Teacher Education, 22*, 337-351.

Fairbanks, C. M., Duffy, G. G., Faircloth, B. S., He, Y., Levin, B. B., Rohr, J., & Stein, C. (2010). Beyond knowledge: Exploring why some teachers are more thoughtfully adaptive than others. *Journal of Teacher Education, 61*, 161-171. doi:10.1177/0022487109347874

Flavell, J. H. (1976). Metacognitive aspects of problem solving. In L. B. Resnick (Ed.), *The nature of intelligence* (pp. 231-235). Hillsdale, NJ: Erlbaum.

Gambrell, L. B., Malloy, J. A., & Mazzoni, S. A. (2011). Evidence-based best practices for comprehensive literacy instruction. In L. M. Morrow, & L. B. Gambrell, (Eds.), *Best practices in literacy instruction* (4th ed., pp. 11-36). New York, NY: Guilford.

Garrett, R., & Steinberg, M. P. (2015). Examining teacher effectiveness using classroom observation scores: Evidence from the randomization of teachers to students. *Educational Evaluation and Policy Analysis, 37*, 224-242. doi:10.3102/0162373714537551

Glasswell, K., & Parr, J. M. (2009). Teachable moments: Linking assessment and teaching in talk around writing. *Language Arts, 86*, 352-361.

Hacker, D. J., Dunlosky, J., & Graesser, A. C. (Eds.). (2009). *Handbook of metacognition in education*. Mahwah, NJ: Erlbaum.

Israel, S. E, Block, C. C., Bauserman, K., & Kinnucan-Welsch, K. (Eds.). (2005). *Metacognition in literacy learning: Theory, assessment, instruction, and professional development*. Mahwah, NJ: Erlbaum.

Kane, T. J., McCaffrey, D. F., Miller, T., & Staiger, D. O. (2013). *Have we identified effective teachers? Validating Measures of Effective Teaching using random assignment.* Seattle, WA: Bill & Melinda Gates Foundation.

Lin, X., Schwartz, D. L., & Hatano, G. (2005). Toward teachers' adaptive metacognition. *Educational Psychologist, 40*, 245-255. doi:10.1207/s15326985ep4004_6

McCormick, C. B., Dimmitt, C., & Sullivan, F. R. (2013). Metacognition, learning, and instruction. In W. M. Reynolds, G. E. Miller, & I. B. Weiner (Eds.), *Handbook of psychology. Volume 7: Educational psychology* (2nd ed., pp. 69-97). Hoboken, NJ: Wiley.

Mercer, N., Dawes, L., & Staarman, J. K. (2009). Dialogic teaching in the primary science classroom. *Language and Education, 23*, 353-369.

Merriam, S. B. (2009). *Qualitative research: A guide to design and implementation.* San Francisco, CA: Jossey-Bass.

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook* (2nd ed.). Thousand Oaks, CA: Sage.

Parsons, S. A. (2010). Adaptive teaching: A case study of one third-grade teacher's literacy instruction. *32nd Yearbook of the Association of Literacy Educators and Researchers,* 135-147.

Parsons, S. A. (2012). Adaptive teaching in literacy instruction: Case studies of two teachers. *Journal of Literacy Research, 44*, 149-170. doi:10.1177/1086296X12440261

Parsons, S. A., Davis, S. G., Scales, R. Q., Williams, J. B., & Kear, K. (2010). How and why teachers adapt their literacy instruction. *31st Yearbook of the Association of Literacy Educators and Researchers,* 221-236.

Parsons, S. A., & Vaughn, M. (2013). A multiple case study of two teachers' instructional adaptations. *Alberta Journal of Educational Research, 59*(2), 299-318.

Parsons, S. A., Williams, J. B., Burrowbridge, S. C., & Mauk, G. (2011). The case for adaptability as an aspect of reading teacher effectiveness. *Voices from the Middle, 19*, 19-23.

Pearson, P. D., & Hoffman, J. V. (2011). Principles of practice for the teaching of reading. In T. V. Rasinski (Ed.), *Rebuilding the foundation: Effective reading instruction for 21st century literacy* (pp. 9-38). Bloomington, IN: Solution Tree.

Reilly, M. A. (2009). Opening spaces of possibility: The teacher as bricoleur. *Journal of Adolescent and Adult Literacy, 52*, 376-384. doi:10.1598/JAAL.52.5.2

Sawyer, R. (2004). Creative teaching: Collaborative improvisation. *Educational Researcher, 33*(2), 12-20. doi:10.3102/0013189X033002012

Schön, D. A. (1983). *The reflective practitioner: How professionals think in action.* New York, NY: Basic Books.

Stake, R. E. (2000). Case studies. In N. K. Denzin, & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (2nd ed., pp. 435-454). Thousand Oaks, CA: Sage Publications.

Stake, R. E. (2006). *Multiple case study analysis.* New York, NY: Guilford.

Thomas, G. P. (2012). The metacognitive science teacher: A statement for enhanced teacher cognition and pedagogy. In F. Ornek, & I. M. Saleh (Eds.), *Contemporary science teaching approaches* (pp. 29-53). Charlotte, NC: Information Age.

U.S. Department of Education. (2009). *Race to the top program: Executive summary.* Washington, DC.

Vaughn, M. (2014). Adaptive teaching: Case studies of two elementary teachers' visions and adaptations during literacy instruction. *Reflective Practice: International and Multidisciplinary Perspectives.*

Vaughn, M., & Parsons, S. A. (2013). Adaptive teachers as innovators: Instructional adaptations opening spaces for enhanced literacy learning. *Language Arts, 91*, 81-93.

Vaughn, M., Parsons, S. A., Gallagher, M., & Branen, J. (in press). Teachers' adaptive instruction supporting students' literacy learning. *The Reading Teacher.*

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes* (M. Cole, V. John-Steiner, S. Scribner, & E. Souberman, Trans.). Cambridge, MA: Harvard University Press.

Williams, T. L., & Baumann, J. F. (2008). Contemporary research on effective elementary literacy teachers. *Yearbook of the National Reading Conference, 57*, 357-372.

Yin, R. K. (2009). *Case study research: Design and methods* (4th ed.). Los Angeles, CA: Sage.

Yin, R. K. (2012). *Applications of case study research* (3rd ed.). Los Angeles, CA: Sage.

Zeichner, K. M., & Liston, D. P. (2014). *Reflective teaching: An introduction* (2nd ed.). New York, NY: Routledge.

Correspondance regarding this article should be directed to Seth Parsons from George Mason University. Email may be sent to sparson5@gmu.edu

APPENDIX
EXAMPLE OF DATA DISPLAY FOR ANALYSIS

ADAPTATION
Teacher teaching lesson on visualizing. She asked students to write down what they visualized. Students were having difficulty. So the teacher said: "Let me model it for you." She reads a passage and thinks aloud "I think about how it feels in his hand, but it also takes me back to something from my experience." Writes down "Seagulls flying over my head, squawking, swooping down to steal my food." "It doesn't say this, but this is what comes to MY mind when I read it. That is what my mind pictures when I read it."

REFLECTION
"I realized that they just really don't get why they visualize and what visualization is and why they visualize, but…so I kind of shifted and just thought, you know, we'll keep a more open approach to them just kind of seeing why we visualize, how it makes things better, and really try to connect and draw on their background knowledge to make those visualizations."

LOW
P: Did that change the way that you worked on this?
L: Yeah.
P: How so?
L: What do you mean?
P: How did it change the way you worked on it?
L: Cause it was easier and she told us what she wanted us to do.

AVERAGE
it was like it made it easier.
P: It made it easier? Why?
G: Because like at first I didn't really know what to do. And now, like, I know.

HIGH
B: Yeah, because she said it in a way, not the way in the passage. She said it in her own words, not in what they said. So that made me think that I have to do my own way of writing it not in the passage.