What Early Career Teachers' Evaluations of Video-based Cases of Reading Lessons Reveal about Analytic Expertise

by

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DEDICATION

To my sweet daughter, Paige. You have always been my inspiration.

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ABSTRACT

The total number of U.S. teachers has increased dramatically over the past decade, resulting in a large percentage of classrooms being led by early career teachers. Given that years of teaching experience correlate with teacher effectiveness (Ingersoll, Merrill, & Stuckey, 2014), the need to support beginning teachers' expertise development has never been greater. A dimension of teaching expertise, namely analytic expertise, is the ability to 1) assess whether students achieve specified learning goals, and 2) identify how and why instruction did or did not affect this achievement (Hiebert, Morris, Berk, & Jansen, 2007). Developing beginning teachers' analytic expertise through systematic and targeted lesson analysis is seen as a promising approach to teacher learning (Ball & Cohen, 1999; Bransford, Derry, Berliner, Hammerness, & Beckett, 2005; Hiebert et al., 2007). However, little is known about beginning teachers' analytic expertise in the context of reading instruction and how it might be developed. The principal aim of this study is to investigate the nature of beginning teachers' evaluations of reading instruction while engaged in lesson analysis in an attempt to understand beginning teachers' analytic expertise. This work is a first step in understanding how this dimension of teaching expertise might be developed.

This dissertation study presents the analysis of four elementary teachers' evaluations of their own and other teachers' early reading instruction. To evaluate other

teachers' instruction, participating teachers used a lesson analysis tool, Cases Studies of Reading Lessons (CSRL), which is designed to inform teachers' analyses of instruction by providing access to an array of supporting materials and analytic tools as they view videos of early literacy lessons. These materials and tools include teacher interviews, a theoretical framework designed to support teachers in thinking about aspects of effective instruction, and literacy specialists' perspectives on the lessons embedded in the system. Participants viewed and evaluated the effectiveness of lessons presented in CSRL. Before and after engaging with the CSRL cases, participants recorded their own instruction, viewed their lesson, and evaluated the effectiveness of their own teaching, noting effective features and features that need improvement.

Participants' evaluations of instruction were first coded to investigate *what* participants identified and discussed about their own and others' instruction and *how* they discussed evaluations of instruction. Then, utilizing indices of analytic expertise established by prior studies of expert/novice analytic expertise, evaluations of instruction were coded to investigate whether participants: (a) discussed significant and relevant features of instruction; (b) discussed increasingly more (over the course of the study) comments concerning the content of the lesson; (c) provided explanations or reasoning for comments made about the instruction; and (d) provided principles of teaching and learning to support claims of the effectiveness of particular aspects of instruction.

As expected, teachers started the study: (a) discussing aspects of instruction not aligning with the TQs; (b) discussing a relatively small number of features of instruction; and (c) primarily using reasons specific to their students, as opposed to principles of teaching and learning. However, after engaging with CSRL, participants (a) discussed more

significant and relevant features of instruction, (b) discussed fewer features of instruction, and (c) provided more principles of teaching and learning. However, there were also notable differences between teachers with more and less experience within the early career parameters. Although all four participants experienced shifts in indices of analytic expertise over the course of the study, suggesting development of analytic expertise, the least experienced participant's analytic expertise shifted more than the other three participants.

Findings suggest that analytic expertise is a complex construct, involving separate dimensions (e.g., identifying significant and relevant features of instruction, being explanatory) that appear to be unequally developed across participants and unequally supported by engaging in lesson analysis. In particular, findings indicate that teachers with the least teaching experience and less-developed analytic expertise may experience the greatest gains in analytic expertise from working with lesson analysis tools, such as CSRL. Therefore, findings from this study suggest that analysis tools, such as CSRL, may be especially beneficial for the growing segment of beginning teachers to develop analytic expertise in early reading instruction. If teachers were supported in developing their analytic expertise early in their careers, perhaps attrition rates would decrease—as teachers who feel more efficacious and successful in their teaching positions are less likely to prematurely leave the profession (Tschannen-Moran & Hoy, 2007).

CHAPTER 1

INTRODUCTION

Supporting the development of expertise for teachers of reading, especially beginning teachers, is a significant need in our educational system (Snow, Griffin, Burns, 2005), and studying in and from practice is a valued approach to supporting teacher learning (Ball & Cohen, 1999; Hiebert, Morris, Berk & Jansen, 2007). Hiebert et al. (2007) argue for the development of preservice teachers' ability to engage in expert analysis of instruction (i.e., analytic expertise) through systematic and deliberate analysis of instruction. They propose a framework for teacher preparation programs designed to support future teachers in learning how to teach from studying teaching and continue to learn from their practice as inservice teachers. Hiebert et al. define the ability to study and improve teaching over time "analytic expertise," which involves: (a) possessing the necessary pedagogical content knowledge, reasoning skills, and content knowledge that all teachers need to assess whether established goals have been met in a lesson; (b) identifying well-supported hypotheses for why the lesson was effective or ineffective, and then; (c) using these hypotheses to revise the lesson. However, since supporting the development of analytic expertise is not a common focus of all (or even most) preservice programs, it is reasonable to assume that many beginning teachers would benefit from learning to do this kind of analysis. Moreover, the number of beginning

teachers in the field is steadily increasing, and a high and growing rate of these teachers leave the field within five years (Ingersoll, Merrill, & Stuckey, 2014). Given that years of teaching experience and teacher effectiveness—measured by student test scores—appear to be linked (Ingersoll et al., 2014), taken with the recent influx of beginning teachers, the need to support beginning teachers' expertise development has never been greater. Supporting beginning teachers in developing analytic expertise may help beginning teachers to stay in teaching, as teachers who feel more efficacious and successful in their teaching positions are less likely to prematurely leave the profession (Klassen & Chiu, 2011; Tschannen-Moran & Hoy, 2007; Wang, Hall, & Rahimi, 2015). Therefore this study seeks to better understand the analytic expertise of beginning teachers by examining their evaluations of instruction. This study also seeks to understand how these teachers' expertise develops through supported opportunities to engage in analysis and evaluation of instruction.

Supporting teachers to become "adaptive experts" has been seen as a "gold standard for learning" (Darling-Hammond & Bransford, 2005). Adaptive experts possess high levels of analytic expertise, enabling them to approach new situations flexibly and engage in lifelong learning (NRC, 2000). They do not simply attempt to be more efficient; adaptive experts strive to be more effective (NRC, 2000). In the field of teaching, expertise requires deep knowledge of (a) learners and how they develop within social contexts, (b) subject matter and the necessary skills to be taught, and (c) effective pedagogy in light of content and learners (Bransford, Darling-Hammond, & LePage, 2005). Therefore, adaptive expert teachers must draw on their extensive knowledge of students, content, and pedagogy to successfully respond to novel and challenging instructional dilemmas (Bransford, Derry,

Berliner, Hammerness, & Beckett, 2005). However most teachers do not become adaptive experts from experience alone (Berliner, 2001); therefore, the development of such expertise must be supported through learning opportunities involving inquiry and reflection on teaching (Bransford et al., 2005). Systematic and guided lesson analysis is believed to support beginning teachers to learn from practice throughout their careers (Ball & Cohen, 1999; Hiebert et al., 2007), which would set beginning teachers on the path to adaptive expertise (Bransford et al., 2005).

Engaging in systematic and guided analysis of instruction has been proposed as a promising way to develop the "analytic expertise" of teachers, especially beginning teachers (Hiebert et al., 2007). Analytic expertise, a form of teaching expertise, is the ability to assess whether students have achieved the learning goals for a particular lesson, and specify how and why the instruction impacted this achievement (Hiebert et al., 2007). Although there are other learning experiences that can support the development of analytic expertise, such as Lesson Study (Stigler & Hiebert, 1999) and instructional coaching (Berliner, 2001), this study (as well as many others) seeks to investigate the use of online lesson analysis tools. The focus on lesson analysis tools is timely and important due to the nature of teaching and our current education system, in that Lesson Study groups and one-on-one instructional coaching are not always possible, nor financially feasible. Web-based professional development tools have potential as a convenient and cost-effective alternative to face-to-face professional learning opportunities (Dede, Ketelhut, Whitehouse, Breit, & McCloskey, 2009; Perry & Talley, 2001). Although web-based professional development resources are propagating, research is lacking (Dede et al., 2009).

Many online tools have been created in recent years in response to calls for resources that support teachers in systematic and guided analysis of instruction (Hatch & Grossman, 2009). Some of these tools utilize a case approach to the analysis of instruction (e.g., Boling, 2007; Koc, Peker, Osmanoglu, 2009). Merseth (1996) defines a *case* as, "a descriptive research document, often presented in narrative form, that is based on a real-life situation or event. It attempts to convey a balanced, multidimensional representation of the content, participants, and the reality of the situation" (p. 726). Video cases are an ideal tool for lesson analysis, as video has the potential to present the reality of teaching (Merseth, 1996). The use of cases is seen by some researchers as a potentially powerful tool for supporting teachers in the analysis of instruction (Perry & Talley, 2001).

Prior inservice studies of teacher learning using video-based lesson analysis resources have primarily focused on mathematics and science instruction (e.g., Seidel, Stürmer, Blomberg, Kobarg, & Schwindt, 2011; Sherin & van Es, 2005; van Es & Sherin, 2008; 2010; Zhang, Lundeberg, Koehler, & Eberhardt). These tools are often designed to support teachers in attending to student thinking, which may in part be due to recent educational reforms calling for teachers to make instructional decisions in the moment of teaching, based on ideas students raise (van Es & Sherin, 2008). Another reason for a focus on student ideas or student thinking is that mathematics and science instruction involve a particular focus on subject matter, as opposed to literacy instruction, which mainly involves the development of strategies and skills (e.g., reading and writing). For example, during mathematics "video clubs" facilitators ask particular questions to help teachers learn to notice and interpret students' thinking. Facilitators ask questions pertaining to students' conceptual understandings, such as, ''If we had to guess if James knows his times

tables, what would you say?'' (van Es & Sherin, 2008, p. 248). Also, in a study investigating teachers' analysis of science instruction, teachers were asked to consider (among others things), "What are students actually doing? What difficulties do students have during this lesson?" (Zhang, Lundeberg, Koehler, & Eberhardt, 2011, p. 455).

Although student ideas are considered important for teachers of early reading to consider when evaluating instruction, there are other significant instructional factors that require attention as well. Expert teachers of reading know that reading is "a complex system of deriving meaning from print that requires" (a) instruction and a learning environment in which students are motivated to read, (b) strategies for constructing meaning from print, (c) sufficient prior knowledge (background and vocabulary) to comprehend text, (d) fluent reading, (e) ability to decode unfamiliar words, and (f) understanding of how phonemes connect to print (Snow et al., 2005, pp. 215-216). Expert teachers of reading also know (among others things) that reading is (a) an interactive and social practice, (b) a developmental process that should be scaffolded, and (c) a tool to accomplish other goals (e.g., learning, enjoyment) (Pearson & Hoffman, 2011). Taken together, the expert teaching of reading is a multi-dimensional process and requires a framework that takes into consideration the complexity of reading.

In this dissertation study, participants evaluate their own and others' early reading instruction. The context in which participants engaged in lesson analysis of other teachers' instruction was a case-driven video-based professional development tool called Cases Studies of Reading Lessons (CSRL). CSRL is an online, interactive, and multimedia program designed to support teachers in evaluating early reading instruction. The CSRL cases feature first through third grade teachers engaged in teaching a series of lessons around a

particular topic dealing with text comprehension (e.g. learning to identify character traits). Each case includes two to four lessons taught by one teacher. Information about the teacher's school, students in the classroom, how the teacher planned the lesson, and the teacher's reflections on the lesson after it has been taught are also included in the cases (Perry & Talley, 2001). Additionally, CSRL utilizes an analytic framework that prompts users to answer questions designed to draw their attention to particular aspects of early reading instruction. These questions, known as the Thinking Questions (TQs) in the CSRL system, were generated by a group of leading literacy scholars based on practice, research, and theory (see Carlisle, Kelcey, Rosaen, Phelps, & Vereb, 2013). Three dimensions of instruction were identified as being particularly worthy of analysis when considering aspects of instruction important for student learning. These dimensions include (a) the purpose and design of the lesson, (b) the methods of instruction utilized in the lesson, and (c) how the instruction addressed student engagement and participation. Each dimension includes a series of questions for users to consider qualities of effective early reading instruction (e.g., the pace of the lesson, whether students seem to understand what they will be learning and why). After answering questions within a given dimension of the TQs, participants are prompted to comment on how effective the instruction was, overall, in terms of the particular dimension and what aspects of the instruction relative to the dimension could be improved upon.

The study of teaching has typically involved the examination of teacher behaviors— e.g., moves while leading whole class discussions, questions asked to probe student thinking— as opposed to the kinds of thought processes and dispositions that research has demonstrated as critical to effective teaching (Pearson & Hoffman, 2011). Therefore,

content-specific pedagogical knowledge and thinking processes for teachers of reading is very limited (Snow et al., 2005). Snow and colleagues (2005) have begun mapping out what teachers of reading need to know, and when, in order to develop into competent and skillful teachers of reading. This study seeks to contribute to this work by investigating how beginning teachers evaluate early reading instruction, more specifically text-based comprehension instruction, and whether lesson analysis tools, such as CSRL, can support less-experienced teachers in analyzing instruction in more expert ways.

Therefore, the principal aim of this study is to investigate the nature of early career teachers' evaluations of instruction while engaged in independent lesson analysis, to better understand how we might support the development of analytic expertise in early reading instruction, specifically text-based comprehension instruction.

To explore the issues discussed above, this study addresses the following research questions:

1. What does engaging in a video-based case-driven approach to lesson analysis reveal about participants' analytic expertise in early reading instruction?

2. What does engaging in a video-based case-driven approach to lesson analysis reveal about participants' ability to analyze other teachers' video-recorded early reading instruction?

3. What does engaging in a video-based case-driven approach to lesson analysis reveal about participants' analysis of their own video-recorded early reading instruction?

This dissertation addresses the aforementioned research questions in six chapters. Chapter 1 presents the introduction, the statement of the problem, background information concerning CSRL, and the research questions. Chapter 2 discusses the conceptual framework and provides a review of literature relevant to the use of video-based cases to support early career teachers' analytic expertise. Chapter 3 provides a detailed and

thorough explanation of the methods and procedures used to gather and analyze data for this study. Chapters 4 and 5 present the findings of this study, while chapter 6 discusses implications for the findings, limitations of the study, as well as direction for future research.

CHAPTER 2

LITERATURE REVIEW

This study seeks to investigate what engaging in a video-based professional learning resource reveals about early career teachers' analytic expertise, in an effort to better understand how to support the development of beginning teachers' analytic expertise. This chapter provides a review of the literature and research related to teachers' analysis of instruction. The chapter is divided into sections that include (a) conceptual framework: development of expertise and situated cognition, (b) expert and novice differences, (c) supporting analytic expertise, and (d) CSRL as a professional learning tool. And finally, the chapter concludes with a short summary of the information presented in the literature review.

Conceptual Framework: Development of Analytic Expertise

Research in the development of expertise (within teaching and other fields) has informed our understanding about teaching expertise in general and is supported by teaching expertise research (Berliner, 2001; Bransford, Brown, and Cocking, 2000). For example, we know that expert knowledge is structured better for use in performance than is novice knowledge, and experts represent problems in qualitatively different ways than do novices, in deeper and richer ways (Berliner, 2001). Further, experts recognize

meaningful patterns faster than novices, and experts are more flexible, while novices are more rigid in their conceptions of teaching and learning (Berliner, 2001).

It is well-established that experts and novice teachers think about instruction in distinctly different ways, and there is reason to believe these differences matter for teaching—that in the moment of teaching, experts are better positioned to respond appropriately to students (Hiebert et al., 2007). Studies have shown that the ability to analyze instruction is better developed in expert teachers than novice teachers (Krull, Oras, & Sisask, 2007; Sato, Akita, & Iwakawa, 1993). We know expert teachers are able to quickly identify salient features of instruction, such as how the instruction impacted student learning, while novice teachers are slower in this process and tend to identify observable features of instruction, discussing fewer connections between instruction and student learning (Sato et al., 1993). Given these differences in how expert and novice teachers' analyze teaching, and that analytic expertise is believed to impact teacher effectiveness (Hiebert et al., 2007), more needs to be known concerning how beginning teachers analyze instruction.

Expert and Novice Differences

In the previous section, I discussed the conceptual framework guiding this study. In this section, I discuss findings from expert/novice studies that examined the analytic expertise of teachers evaluating videotaped instruction.

As previously mentioned, there are distinct differences in how less-experienced and more-experienced teachers analyze instruction. For example, Sato and colleagues (1993) sought to examine "practical thinking styles" of expert teachers and compared these thinking styles to those of novice teachers. "Practical thinking styles" was defined as "a

personally consistent (and, usually, implicit) way of thinking (and/or action) about the process of teaching" (p. 102). Sato et al. analyzed participants' think-aloud comments during and after viewing a videotaped clip of a fifth grade poetry lesson. Overall, Sato et al. found that expert teachers were better able than novice teachers to grasp the complex structure of teaching and were able to make better teaching decisions. They also found that expert teachers commented more about the instruction while viewing the video clip—seven times that of novices. Additionally, experts covered a wide range of content and were more specific in what they said about the instruction. Sato et al. found that experts were able to identify key concepts (i.e. core aspects of the instruction), and were able to elaborate on what they saw. Novice teachers, on the other hand, covered less content, were less specific, rarely identified key concepts, and offered little elaboration on what they saw. Further, Sato et al. (1993) found that expert teachers were better able to actively and thoughtfully consider student learning. The authors describe being able to "actively and thoughtfully consider student learning" as having the ability to use multiple perspectives (i.e. their own perspective, the learners' perspective, the teacher's perspective). Novice teachers, alternatively, only passively considered observable teacher and student behaviors using primarily their own perspectives.

Drawing on the work of Sato et al. (1993), Krull and colleagues (2007) investigated whether novice and expert teachers' perceptions and understandings of classroom events differed based on expertise. Krull and colleagues asked five novice teachers and five expert teachers to view a preselected video clip of a middle school grammar lesson. While viewing the video, participants were asked to comment aloud on everything they thought and felt while watching the lesson. In their analysis, Krull et al. coded participants' comments for

instructional events discussed, whether comments were fact or interpretation, and whether interpretations were relevant or irrelevant to the instructional event discussed. The codes "relevant" and "irrelevant" were reported as being defined for analysis; however their working definition for these terms was not provided in the paper.

Krull et al. (2007) found statistically significant differences between novice and expert teachers' comments concerning the instruction they observed. Specifically, they found that novice teachers were more likely to comment on what the students or teachers did in general terms, while the expert teachers' comments critically examined class and teaching events, methods used, and the content of the lesson in more detail. Further, novice teachers failed to perceive relevant details in the video and their comments revealed superficial understanding of ongoing activities (e.g. had no basis for conclusions drawn). Expert teachers had twice as many interpretative comments on how instruction guided student learning as novice teachers and commented significantly more than novice teachers on the transfer of learning for students. When examining both novice and expert comments: a) "about teaching"; b) "about teaching and learning as joint activity"; and c) "about learner activities and learning", expert teachers commented twice as often as novice teachers about "teaching and learning" as a joint activity (p. 1047).

Findings from both the Sato et al. (1993) study and the Krull et al. (2007) study suggest that the ability to analyze instruction critically is a characteristic of expert teachers, but not necessarily of novice teachers. This difference in analysis of instruction between expert and novice teachers can be seen in *what* teachers identify and discuss and *how* they discuss these identified aspects of instruction. This evidence of distinct differences in how novices and experts analyze instruction, and evidence that these differences matter for

teaching and student learning, have led some educators to wonder if less-experienced teachers can be systematically supported to develop analytic expertise (Hiebert et al., 2007).

Supporting Analytic Expertise

In the previous section, I discussed expert/novice studies examining differences in how teachers with contrasting levels of teaching experience evaluate and process videotaped instruction. In this section, I review studies that have sought to develop participating teachers' analytic expertise using videotaped instruction. Across these studies, researchers have found similar benefits for teachers engaging in the analysis of instruction. Benefits discussed include that teachers become (a) better able to identify significant and relevant features, (b) increasingly specificity when discussing instruction, and (c) more interpretative in the nature of their comments.

Educational researchers have investigated the use of records of practice to facilitate teacher learning for some time now. Although there are other approaches to help teachers develop analytic expertise, such as school-wide reform initiatives, using records of practice is a promising approach when considering the call to provide professional development that is not seeking to overhaul or change the existing education system, but rather support teachers in learning from and in practice (Ball and Cohen, 1999). Further, we know from studies investigating teachers' analysis of instruction that teachers do benefit from engaging in the analysis of instruction (Osipova et al., 2011; Rosaen et al., 2008; Rosaen, Lundeberg, Cooper, Fritzen, 2010; Santagata, Zannoni, Stigler, 2007; Seidel et al., 2011; Sherin & van Es, 2005; van Es & Sherin, 2002; 2008; 2010; Zhang, Lundeberg, Koehler, & Eberhardt's 2011). This section reviews these benefits.

Better able to identify significant and relevant features. Findings across many of the studies indicated a change in *what* participants noticed and discussed in the lesson. Specifically, findings point to an increase in participants' ability to identify significant and relevant features of instruction or in other words, features of instruction that are most likely to impact student learning. At the beginning of the studies participants were more likely to notice and discuss what the teacher in the lesson was doing; however by the end of the studies, participants paid more attention to student learning (Osipova et al., 2011; Rosaen et al., 2008; Rosaen et al., 2010; Santagata et al., 2007; Sherin & van Es, 2005; van Es & Sherin, 2008; 2010). Sherin and van Es (2005) compared data from two related studies of video-analysis in a study of the use of video to support teachers' analysis of instruction. They sought to examine how video can be used to help teachers (both inservice and preservice) learn to notice classroom interactions. van Es & Sherin (2002) examined mathematics and science preservice teachers' analysis of their own instruction using the video analysis support tool VAST. Video Analysis Support Tool (VAST) was designed to help teachers learn to notice important instructional events in their own classrooms. van Es & Sherin (2002) report that VAST prompts teachers to analyze three particular aspects of classroom interactions: student thinking, teacher's roles, and discourse. Further, VAST is designed to provide scaffolding for teachers in using evidence to support their claims, interpreting the events they notice in the video, and following a prescribed sequence in their analysis. The researchers found that preservice teachers began the study identifying the events they observed in their video chronologically. However, by the end of the study, the teachers were less focused on chronological retelling of the video and were instead better able to identify self-reported salient aspects of their own instruction.

In a second study, Sherin & van Es (2005) studied four middle school mathematics teachers as they met monthly in "video clubs" to view and discuss video-taped instruction from their own teaching. In the video club study, support also came from the video club facilitators who asked open-ended questions and prompted teachers to elaborate on what stood out to them in the video. These discussions began after teachers had watched the video excerpt with facilitators typically asking, "What did you notice?" Over the course of the year, teachers in this study shifted from focusing on pedagogy (i.e., instructional moves made by teachers) at the beginning of the study to focusing on student thinking by the end of the study.

Increasingly specific when discussing instruction. Another commonality across many of the studies is an observed shift in participants' specificity about the instruction they viewed (Osipova et al., 2011; Rosaen et al., 2008; Rosaen et al., 2010; Santagata et al., 2007; van Es, & Sherin, 2002; 2008). Osipova et al. (2011) explored the use of video as a self-reflection tool combined with high-quality, collaborative professional development. Sixteen upper-elementary special education teachers were involved in a professional development program at the time of the study. Participants were asked to view and rate video of their own instruction six times throughout the one-year study. Participants were given a rubric for rating their instruction, which was designed to draw their attention to principles of "effective instruction" (e.g., intensive instruction, explicit instruction, coherence of lesson, responsiveness to students). Participants were asked to note what worked in their lesson and what they would change in future lessons. Literacy coaches also viewed and evaluated participant videos and then participants met individually with a

coach to discuss each of their ratings. Osipova et al. (2011) indicated that participant comments were initially vague but became more explanatory over the course of the study.

More interpretative in the nature of their comments. A fourth commonality was a shift from participant comments initially being explanatory in nature and then becoming more interpretative throughout the course of the study (van Es & Sherin, 2002; 2008; 2010). Van Es and Sherin, (2002) investigated the extent to which interns could learn to notice and interpret classroom interactions when using a software program (VAST) discussed previously, that was designed to develop new ways for intern teachers to analyze instruction. In this study, van Es and Sherin define noticing as:

> (a) identifying what is important or noteworthy about a classroom situation; (b) making connections between the specifics of classroom interactions and the broader principles of teaching and learning they represent; and (c) using what one knows about the context to reason about classroom interactions. (p. 573)

Out of 12 total interns enrolled in a course, six interns were randomly selected to use VAST. Results indicate VAST was effective in supporting interns to develop their analytic ability. In particular, teachers in the experimental group were more likely to interpret rather than merely describe the noteworthy events in the lesson. For example, participants in the experimental group would often explain how a teacher move influenced student understanding or what a particular student meant when analyzing student thinking.

The studies reviewed suggest a change in *what* participants noticed and discussed in a given lesson, point to an increase in participants' ability to identify significant and relevant features of instruction, suggest a shift in participants' specificity about viewed instruction, and indicate a shift from participant comments initially being explanatory in nature and then becoming more interpretative. From the studies discussed, teacher learning appears to be achieved through the use of records of practice and support for

analysis. However, with few insights into the analytic expertise development of beginning teachers of reading, what requires further investigation is how beginning teachers evaluate early reading instruction, while using a tool such as CSRL.

Hypotheses Guiding Study

In the previous section, I discussed studies that have sought to support teachers' analytic expertise using video records of practice. In this current section, I draw on the previous review of literature, for both expert/novice studies and studies to support teacher analytic expertise, to identify hypotheses of how I expect participants in this study will evaluate instruction.

Drawing on the aforementioned analytic expertise research discussed in this section, I anticipated that participants at the beginning of the study would approach the analysis of instruction in ways particular to less-experienced teachers. Further, I anticipated that participants' work with the CSRL cases would influence participants' analytic expertise. As such, the following hypotheses guided my research:

1) Prior studies of teaching expertise have found that novice teachers experience difficulty discerning what (instructionally) is important to attend to (Berliner, 1988; Krull et al., 2007; Sato et al., 1993). For example, novice teachers primarily discuss what students and teachers are *doing* in lessons and fail to discuss aspects of the instruction that are most significant for students' learning, whereas expert teachers tend to discuss the instructional activities and methods of instruction that are most likely to impact student learning (Krull et al., 2007). In line with this research, I anticipated that, when asked to identify the most salient aspects of instruction impacting student learning at the outset of the study, participants would mainly discuss aspects of instruction that are less closely associated

with student learning, such as teacher affect, classroom management, and classroom routines. However, given that CSRL is designed to support users in attending to the features of instruction that are most likely to impact student learning—such as teachers' monitoring of student understanding and opportunities for students to apply what they learned—I expected that participants would begin to identify more of these features by the end of the study. In the language of the current study, I expected that participants would begin to attend to more "significant and relevant" features of the videotaped instruction.

2) Prior studies involving analytic expertise have also found that, when expert and novice teachers are asked to comment on everything they see and hear in a lesson, expert teachers make more comments concerning the content of the lesson than do novice teachers (Berliner, 1988; Krull et al., 2007; Sato et al., 1993). In the current study, I anticipated that participants would begin the study discussing a small number of features of instruction likely to impact student learning. However, by the end of the study, I anticipated that the number of features of instruction participants discussed would increase, as participants would become more expert in identifying features of instruction most likely to impact student learning from their work with the CSRL cases.

3) Finally, several expert/novice studies have found that novice teachers, when commenting on videotaped instruction, are more likely than expert teachers to describe what they see and hear in observable terms and are far less likely to provide explanations or reasoning for comments made about the instruction (Berliner, 1998; Krull et al., 2007; Sato et al., 1993). Therefore, in this study of early career teachers, I anticipated that, at the outset of the study, participants would provide little reasoning or explanation to support their evaluations of the instruction. To extend this existing research, I am not only

investigating *if* participants provide explanations or reasoning for their claims made about the effectiveness of the instruction, but I am also investigating the *quality* of these explanations. CSRL is explicitly designed to support users in analyzing instruction in more expert ways and in providing interpretations of instructional episodes that rely on principles of teaching and learning, rather than idiosyncratic explanations specific to the students in the lesson. As such, after engaging with the CSRL cases, I anticipated that participants would begin to include more interpretative explanations to support their evaluations of instructional events and that these would rely more upon principles of teaching and learning.

This study is not positioned to make causal claims about the effects of CSRL on participants' analytic expertise, as this study takes place over periods of time (as much as 6 months) and there could have been any number of influences on teachers' thinking about instruction. However, one commonality across participants is that each of the teachers was engaged in lesson analysis by way of CSRL. Teachers were introduced to and asked to use CSRL; therefore investigating possible influences closely resembling characteristics of CSRL is reasonable.

CSRL as a Professional Learning Tool

To test the aforementioned hypotheses, I chose CSRL as the context in which to study participants' analytic expertise, as it was designed with fruitful features for examining my research questions. Blomberg and colleagues (2013) propose heuristics for using video for teacher learning, and although the heuristics were designed with preservice teacher education in mind, much of their recommendations are applicable to inservice teachers as well (Blomberg, Renkl, Sherin, Borko, & Seidel, 2013). Because the learning

goals for using video for teacher learning should determine the activities teachers engage in, as well as the features or characteristics of the activity (Blomberg et al., 2013), I discuss the features of CSRL useful for studying beginning teachers' analytic expertise in reading instruction. In light of Blomberg and others' (2013) heuristics, I discuss the following characteristics of CSRL (a) video records of practice, (b) video records of practice presented as cases, (c) analytic frameworks used to guide viewing and evaluation, (d) content-specific, (e) independent use.

Video records of practice. One caution of Blomberg and others was that video should not be used without specific goals guiding the use of video (2013). Since the learning goals for participants in this study were to engage in and be supported in the analysis of early reading instruction, the use of video records of practice was seen as a fruitful approach, because there is consensus that video is an ideal method for the analysis of instruction (Ball & Cohen, 1999; Hatch & Grossman, 2009). The use of video to support teacher learning has been widely used in preservice education and has been shown to improve preservice teachers' abilities to reflect on and analyze practice (Rosaen et al., 2008; Santagata & Angelici, 2010; Santagata, et al., 2007; van Es & Sherin, 2002). Video has been widely used to support teacher learning in inservice settings as well (Borko et al., 2008). One benefit of video, as opposed to live observations, is that it can provide teachers the opportunity for repeat viewing, which allows teachers to practice and develop their ability to analyze instruction (Bransford, Derry, Berliner, Hammerness, & Beckett, 2005).

Further, in their review of research, Blomberg and colleagues (2013) found that the type of video used matters for teacher learning. Considerations for video material include (a) whether teachers should view their own or others' instruction, (b) whether instruction

should be familiar or unfamiliar, and (c) whether instruction should be best-practice or typical practice. As previously discussed, the video presented in CSRL is of other teachers and was intended to be relatively familiar to teachers, such that users of CSRL would have a point of reference when evaluating the instruction. And finally, typical practice, as opposed to exemplary practice was better suited for the learning goals of this study, such that participants could not only identify and discuss effective features of instruction but also areas in need of improvement, as this is a valuable skill as well when developing analytic expertise (Hiebert. et al., 2007).

Video records of practice presented as cases. Blomberg and others discuss possible limitations of video as a tool for teacher learning, such as viewers may inadvertently bring their own biases to bear when watching and interpreting events shown on video (2013). CSRL was designed with this limitation in mind and provides contextual information to help shape users' interpretations of the instruction in the videos, which Blomberg et al. (2013) offer as an approach to compensate for this limitation. Instruction available for analysis in CSRL is presented as video-based cases.

Presenting instruction using a video-based case approach provides the user access to information about the school, students, teacher thinking, and other background information relevant to the lesson (Perry & Talley, 2001). Providing sufficient contextual information is necessary, because, as Erickson (2007) found, without it "the viewer constructs his or her own narrative understanding of the footage on the basis of prior experience" (p. 153). CSRL provides users with information about the school context (e.g. curriculum used, student demographic information), background information about each lesson taught within a case (e.g. why the teacher chose to teach this lesson and what

students have done prior to the lesson), images of the materials used during the lesson (e.g. texts, charts), and reflection interviews with the teacher after the lesson has been taught. Having this type of information helps to ensure that users have sufficient information to accurately interpret instructional events (Lampert, 2000; Zhang, et al., 2011).

Analytic frameworks used to guide viewing and evaluation. Blomberg et al. (2013) found that providing teachers with prompts to guide analysis of instruction was an important component for teacher learning. Participants in this study were guided by theoretical framework, namely the TQs. The use of analytic frameworks to guide teachers' analysis of instruction is a potentially significant support for lesson analysis because in any lesson there can be countless aspects of instruction vying for one's attention (Brophy, 2004; LeFevre, 2004). Further, beginning teachers often have difficulty identifying and discussing critical or relevant aspects of instruction without a lens for viewing instruction (Berliner, 2001; Santagata et al., 2007; Star & Strickland, 2008; van Es & Sherin, 2002). Guidance is often provided through accompanying questions or prompts designed to help viewers pay attention to and think about particular aspects of the videotaped instruction, such as student learning (e.g., Carlisle et al., 2013; Santagata et al., 2007; van Es & Sherin, 2002). In theory, through repeated observations and evaluations of instruction using the framework, users begin to internalize the framework, such that with time they will apply the framework, or way of thinking about instruction, to their own teaching. Findings from a prior study of CSRL suggest that the TQs are a promising way to provide guidance for the analysis of instruction (Carlisle et al., 2013)

While some teacher educators have warned against teachers evaluating other teachers' instruction, citing negative consequences such as teachers feeling "judged"

(Borko, 2011; LeFevre, 2004), this study adopts an approach to the evaluation of instruction in which considering the effective aspects of instruction and the aspects of instruction in need of improvement can be achieved in a constructive way. There is great value in critically and constructively discussing instruction, as though among colleagues, and CSRL provides teachers an opportunity to practice and refine these professional skills. Scholars agree that striving for this type of dialogue around instruction is an important skill for teachers to have (Ball & Cohen, 1999; Hiebert, 2007).

Unique features. Although not included in Blomberg's et al. (2013) heuristic, CSRL has two other unique and fruitful features important for this study. One is that CSRL can be used as an independent learning tool, meaning users can view and evaluate early reading instruction online, in a systematic and deliberate way. Another, is that CSRL is content-specific, such that users can harness and refine analysis of early reading instruction, more specifically, text-based comprehension instruction. This is a valuable feature as research has suggested for some time that teaching expertise, and likely analytic expertise is content-specific (Sato et al., 1993; Hiebert et al., 2007). As such, it is reasonable to assume that the development of analytic expertise should be content-specific as well.

Summary of Literature Review

Having analytic expertise is crucial for teachers because it likely leads to improved instruction and more accurate and critical reflections on practice which can inform future instruction (Hiebert et al., 2007). Studies suggest it may be possible to support teachers in developing analytic expertise earlier in teachers' careers by providing supported and targeted opportunities for analysis of instruction (Santagata & Angelici, 2010; Sherin & van Es, 2005; Van Es and Sherin, 2002). One promising approach that has been shown to

support the development of teachers' analytic expertise has been through the use of video records of practice (Rosaen et al., 2008; Santagata & Angelici, 2010; Santagata, et al., 2007; van Es & Sherin, 2002), in conjunction with analytic frameworks (e.g., guidance in what aspects of instruction to attend to) (Brophy, 2004). This study investigates what viewing and analyzing others' video-taped instruction reveals about beginning teachers' analytic expertise in reading instruction by examining *what* aspects of instruction participants discuss and *how* participants discuss this instruction before, during, and after the professional learning opportunity. The following characteristics of this study are unique contributions to the field: (a) participants are beginning teachers; (b) there is a focus of content on early reading instruction, specifically text-based comprehension; and (c) lesson analysis occurs independently (i.e. not in study groups or with a facilitator). These unique features contribute to our understanding of how *beginning* teachers' conceptualize early reading instruction, more specifically *text-based comprehension* instruction, as they view and evaluate their own and others' instruction *independently*, and whether engaging in lesson analysis appears to influence analytic expertise of early career teachers of reading.

CHAPTER 3

METHODS

In this chapter, I begin with an overview of the research design, a description of CSRL, and an overview of the methodology. I discuss the participants in the study, data sources, procedures for data collection, and data analysis. Finally, I conclude with a summary of the methods.

Overview of Research Design

To investigate what viewing and analyzing video records of practice reveals about participants' analytic expertise in early reading instruction, I closely examined participants' evaluations of their own instruction and other teachers' instruction presented in the CSRL cases. First, participants were videotaped teaching a lesson (hereafter known as Lesson 1). Then, participants viewed and evaluated their teaching and discussed their evaluation with me in an interview. Next, participants independently completed four CSRL cases. To complete a given case, participants read contextual information specific to each lesson before viewing the video of the lesson. Then, participants responded to the Thinking Questions (hereafter TQs) and produced written responses discussing the aspects of instruction participants thought were effective, as well as the aspects of instruction in need of improvement. The TQs were designed to draw CSRL users' attention to (a) the lesson purpose and design, (b) the instruction, (c) student engagement and participation. To

investigate how participants interacted with the CSRL cases, each participant completed one think-aloud while working with the first lesson of their third case. After completing all four of the CSRL cases, participants re-evaluated Lesson 1. Finally, participants were videotaped teaching a second lesson (hereafter known as Lesson 2). Participants viewed and evaluated their videotaped instruction and discussed their evaluation of Lesson 2 with me in an interview.

Description of CSRL

The four CSRL cases selected for this study were chosen from 16 available cases. There were a number of variables taken into consideration when I selected the four CSRL cases for this study. First, I selected cases to provide a range of grade levels, such that the CSRL cases would be as relevant as possible to the grade level participants taught at the time of the study. Further, I selected cases to provide a range in content focus (e.g., a lesson using nonfiction text, a character study using narrative text) and population of students (i.e., socioeconomic status) with the idea that participants would benefit from viewing and analyzing diverse and realistic instruction. Additionally, I took into consideration the number of lessons within a case in order to moderate the total amount of time participants would devote to working with the CSRL cases. And finally, I sought to provide participants with the opportunity to work with all three of the dimensions of TQs as much as possible. Since only one dimension of the TQs was assigned to each lesson when the cases were created, and because I was also considering the aforementioned issues, in the end, I ensured participants had the opportunity to work with each dimension at least twice. In the following section, I provide a description of each of the CSRL cases that participants were asked to complete.

Participants completed the following four cases (a) *Leena Zeeban Builds ELL Students' Language and Literacy*, (b) *Kate Kaufmann: Lessons on Character Study*, (c) *Karla Smith Integrates Literacy and Social Studies*, (d) *Christina Williams: Teaching Narrative Structures*. Participants also had access to an optional case, *Tanya Brown: Models Self-Monitoring Strategies,* for the purpose of practicing with the CSRL environment before accessing and working with the other four cases. Table 3.1 displays an overview of the assigned CSRL cases with information pertaining to the suggested order of completion, the grade and the number of lessons in the case, and the dimensions of TQs for each lesson of the case.

Table 3.1 Overview of assigned CSRL case

Suggested Order	CSRL Case	Grade	# of Lessons	Dimension of TQs*
Optional	Tanya Brown Models Self-Monitoring Strategies	1st	2	LPD; SEP
1st	Leena Zeeban Builds ELL Students' Language and Literacy	2nd	2	LPD; SEP
2nd	Kate Kaufmann: Lessons on Character Study	1st & 2nd	3	Instruction; LPD; LPD
3rd	Karla Smith Integrates Literacy and Social Studies	3rd	3	LDP; SEP; Instruction
4th	Christina Williams: Teaching Narrative Structures	3rd & 4th	3	LPD; SEP; SEP

*Dimensions of TQs are listed in order of the lessons (i.e., lesson 1, lesson 2, etc.)

Optional case: *Tanya Brown Models Self-Monitoring Strategies*. In this case, Tanya Brown taught two reading lessons in a first grade classroom. The lessons took place over two consecutive days in the second month of the school year during their Reader's Workshop. Both lessons are about what readers do when they get stuck while reading. The first lesson is an introduction to the self-monitoring strategy of what to do when readers come to an unknown word, and the second lesson is a follow-up lesson, in which Tanya

built on what students learned the day before by modeling what readers do when they notice something they read does not make sense.

Case 1: *Leena Zeeban Builds ELL Students' Language and Literacy*. In this case, Leena shared two lessons she taught to a small group of the English language learners (ELL) in her second grade classroom. For the first lesson, Leena incorporated a review and discussion of students' science vocabulary words into her lesson focused on reading about and discussing how to be a wildlife spy. In the second lesson, she had students read the text on being a wildlife spy and discussed what they learned; she extended the lesson by preparing students to write a report on one of the animals they read about.

Case 2: *Kate Kaufmann: Lessons on Character Study*. In this case, Kate taught three lessons that are part of a unit of study on character traits for first and second graders. In the first lesson, Kate worked with the students as a whole group to identify the character traits of a supporting character in a story they had previously read as a group. For the second lesson, Kate supported her students to identify events in the story that influenced changes in a character's traits. In the third lesson, Kate read a new story and worked with the students to create an emotion graph, plotting the main character's emotions as they (emotions) relate to events in the story.

Case 3: *Karla Smith Integrates Literacy and Social Studies*. In this case, Karla shared three lessons that involve integrating reading and social studies in her third grade classroom. In the first lesson, Karla prepared her students to think as historians and to apply strategies for understanding texts about three Native American tribes. In the second lesson, she used a text entitled, *The Ojibwa,* to teach students to pose questions to deepen their understanding of what they have read. She also introduced a graphic organizer to help

students record information while reading. And for the third lesson, Karla's students contributed information they gathered from comparing and contrasting three Native American tribes across three texts.

Case 4: *Christina Williams: Teaching Narrative Structures.* The fourth case is comprised of three lessons Christina taught to her group of third and fourth grade students. In the first lesson, Christina worked on story structure by focusing on characters, setting, and plot while introducing a new fictional story they read as a whole group. In the second lesson, Christina worked with a small group of students on another type of narrative (biography). In the third lesson, Christina focused on character traits of the main character in the story she had introduced in the first lesson.

Participants

I recruited teachers in two phases. I recruited participants once in the spring of 2013 to secure interested teachers who preferred to complete the CSRL cases over the summer. I recruited participants again in the fall of 2013 to follow up with teachers who could not participate in the summer but were available in the fall. To initiate recruitment, I contacted Michigan English Language Arts (MiELA) state facilitators and district literacy leaders by means of email to ask for recommendations of early career teachers who may be interested in the study. The recruitment email included a brief description of the purpose of the study, a description of participation expectations (e.g., time commitment), potential benefits, and an attached flyer with more details about the study. Recruitment emails informed teachers that the study sought to investigate how viewing and analyzing early reading instruction (one's own and others') influenced one's ability to evaluate early reading instruction. And that the study would involve completing four cases of reading

lessons and videotaping their own instruction twice, so as to view and analyze their own instruction. The text of the recruitment email can be found in Appendix A and the recruitment flyer can be found in Appendix B. Teachers who were recommended for the study, as well as recent elementary education graduates from a nearby university, were emailed a similar message with a description of the purpose of the study, study expectations, potential benefits, and the recruitment flyer.

I followed up with interested teachers to inquire about their professional experience (by means of email) to assess whether teachers met selection criteria. The selection criteria provided parameters for identifying early career teachers and were also included so that participants found the cases presented within CSRL relevant to their own teaching experience. Selection criteria included whether interested teachers (a) had taught for seven years or less, (b) did not have a master's degree in curriculum or instruction, (c) were currently teaching kindergarten through fourth grade, (d) had not worked with the CSRL cases before. Interested teachers who met these criteria were given an electronic consent letter to review and sign. The teacher consent letter can be found in Appendix C.

Once teachers had agreed to participate in the study, we scheduled Lesson 1, and I gave teachers an informed content letter to send home with students to notify parents of the study. The parent informed consent letter can be found in Appendix D. When participants completed the study, participants received $100 and a certificate of completion indicating 10 hours of professional development in appreciation for their time and effort.

Teacher Participants and School Sites

Seven teachers agreed to participate in the study. However, due to unforeseen circumstances (e.g. needing to care for sick parent, getting laid off), three of these teachers did not complete the study. Of the four participants who did complete the study, two were recruited in the first phase of recruitment, and two were recruited in the second phase of recruitment. I considered four teachers as an adequate number of participants because this sample size allowed for comparison across multiple participants with varying teaching experience within the previously discussed parameters of early career teachers (i.e., years taught and no master's degree in curriculum or instruction).

One participant, Ms. Thompson[1], had seven years of teaching experience at the beginning of the study. She taught kindergarten for all seven years in a rural school district in southeast Michigan. At the end of the study, Ms. Thompson was in her eighth year of teaching and was still teaching kindergarten at the same elementary school. Ms. Thompson earned her teaching certification through a one-year master's program.

Another participant, Ms. Cooper, was in her fourth year of teaching at the time of the study. She taught within the same rural school district in southeast Michigan as Ms. Thompson (although they taught at different elementary schools). During the study, she was teaching third grade for the first time. Prior to teaching third grade, Ms. Cooper had taught fourth grade for three years. Ms. Cooper earned her teaching certification in a traditional four-year undergraduate program.

Ms. Ward, another participant, had three years of teaching experience in a suburban school district in southeast Michigan. At the time of the study, she was teaching third grade for the first time. Prior to teaching third grade, Ms. Ward had been a kindergarten

[1] All participant names have been replaced with pseudonyms
[2] If Lesson 2 was conducted in a new school year with new students, an informed consent letter was sent home to

interventionist for one year and a first grade teacher the other year. Similar to Ms. Cooper, Ms. Ward earned her teaching certification in a traditional four-year undergraduate program.

The final participant, Ms. Young, was in her first year of teaching second grade in an urban school district in southeastern Michigan. At the end of the study, during her second year of teaching, Ms. Young was an ESL teacher at a new school in another urban school district in southeast Michigan. Similar to Ms. Thompson, Ms. Young earned her teaching certification through a one-year master's degree program.

Ms. Thompson and Ms. Young completed the CSRL cases over the summer of 2013, meaning they began the study (taught and evaluated Lesson 1) in the spring of 2013 (at the end of the 2012-2013 school year) and finished the study (taught and evaluated Lesson 2) in the fall of the 2013-2014 school year[2]. The other two participants, Ms. Ward and Ms. Cooper, started the study in the fall of the 2013-2014 school year and finished the study in the spring of the same school year.

Prior to the study, I had worked with Ms. Young in her teacher certification program as her field instructor. I had not previously worked with the other three participants. Table 3.2 provides a summary of participants' professional background and information for corresponding school sites.

Table 3.2 Professional background and school sites

Teacher	Total years taught*	MA	School district(s)	School Population	Free and reduced price lunch
Ms. Thompson	7	MA	Rural southeast MI	540	14%
Ms. Cooper	4	N/A	Rural	369	33%

[2] If Lesson 2 was conducted in a new school year with new students, an informed consent letter was sent home to parents prior to the videotaping of Lesson 2

Ms. Ward	3	N/A	southeast MI Urban	479	27%
Ms. Young	1	MA	southeast MI Urban southeast MI	368/233**	79%/97%

*At outset of study **The first number listed in each column concerns the first school and the second number listed is for her second school during the study

An Overview of Methodology

A research assistant and I analyzed interviews in which participant discussed their evaluations of Lesson 1 and Lesson 2 to investigate what the evaluations of their own instruction revealed about analytic expertise. We coded participants' interviews, responses to CSRL cases, and think-alouds to examine *what* participants identified and discussed about their own and others' instruction and *how* they discussed evaluations of their own and others' instruction. We analyzed coded evaluations across individual participants and across participants.

Data Collection Procedures and Data Sources

To investigate what participants' evaluations of their own and others' instruction revealed about analytic expertise, I collected multiple data sources. Interviews of participants discussing evaluations of their videotaped instruction were audio-recorded. Interviews included participants' (a) evaluation of Lesson 1, (b) re-evaluation of Lesson 1, (c) evaluation of Lesson 2. Participants were video-recorded thinking aloud while completing the first lesson of a CSRL case. And, participants' Likert scale ratings and open-ended written responses to the TQs were collected from the four CSRL cases participants completed. Table 3.3 provides an overview of each phase of data collection and the corresponding data sources.

Table 3.3 Overview of data collection and data sources

Phase of study	Prepare and evaluate Lesson 1	Complete 1st and 2nd CSRL cases	Think-aloud (1st lesson of 3rd case)	Complete 3rd and 4rd CSRL cases	View and re-evaluate Lesson 1	Prepare and evaluate Lesson 2
Data Source	Evaluation of Lesson 1 interview	Likert scale ratings and open-ended written responses to TQs	Video of Think-aloud	Likert scale ratings and open-ended written responses to TQs	Re-evaluation of Lesson 1 interview	Evaluation of Lesson 2 interview

Data Sources

Evaluation of Lesson 1 interview. During the evaluation of Lesson 1 interview, I asked participants to discuss the features of their instruction they found to be effective in relation to student learning and why they thought these aspects were effective. Participants also discussed the features of their instruction concerning student learning in need of improvement and why these aspects of their instruction need improvement. Additionally, I asked participants to consider what experiences might have influenced their analysis (e.g. other professional learning opportunities). Finally, to garner an understanding of participants' perspective of literacy instruction, I asked participants to discuss what their role is as a literacy teacher. A complete interview protocol can be found in Appendix E.

Re-evaluation of Lesson 1 interview. After completing the four CSRL cases, participants re-evaluated Lesson 1. I asked participants to evaluate Lesson 1 without concern for how they originally evaluated the lesson. In other words, participants were told they could discuss any aspects of their instruction that they found to be important for student learning, regardless if they had discussed the features during the first evaluation or

not. A complete re-evaluation interview protocol can be found in Appendix F. All interviews were audio-recorded, conducted in person, took approximately 45-60 minutes, and were held in settings of participants' choice convenient for them (i.e. their classrooms, homes, and coffee shops).

Evaluation of Lesson 2 interview. The interview protocol for the Lesson 2 evaluation interview was identical to the interview protocol used for the Lesson 1 evaluation interview, with the exception of a few additional questions pertaining to participants' work with the CSRL cases. Again, I asked participants to discuss the features of their instruction they found to be effective in relation to student learning and why they thought these aspects were effective. Participants discussed the features of their instruction concerning student learning in need of improvement and why these aspects of their instruction need improvement. Additionally, I asked participants to discuss whether they thought their work evaluating the CSRL cases might have influenced their analysis of their own instruction. A complete interview protocol can be found in Appendix E.

Responses to the TQs. While evaluating the CSRL cases, participants responded to the TQs. I collected participant responses to the TQs, both Likert scale ratings and open-ended responses, either electronically in the Thinking Questions Response Word document or on a hardcopy of the Thinking Questions Response document. An excerpt from the Thinking Question Response document can be found in Appendix G.

Likert scale responses to the TQs. Participants responded to the TQs on a six-point Likert scale, with one end indicating agreement (e.g., yes the instruction was effective) and the other end indicating disagreement with a particular statement related to one of the three dimensions (e.g., no the instruction was not effective). Each set of the TQs ends with a

question asking participants to make an overall Likert scale rating of the lesson based on the given dimension.

Open-ended written responses to the TQs. After rating each lesson's effectiveness on a Likert scale, participants responded to two open-ended questions based on their evaluation of the lesson as a whole. Participants were asked to (a) comment on a few effective features of the lesson, (b) offer a few suggestions for how to improve the lesson.

Think-alouds. To provide insight into how participants typically interacted with the CSRL cases, I asked participants to think-aloud during the first lesson of the third case, *Karla Smith Integrates Literacy and Social Studies*. Think-alouds were videotaped to capture participants' work on the computer screen and their thoughts as they engaged with the features available within CSRL. I asked participants to say what they were thinking and doing as they engaged with the case. During think-alouds, I was primarily silent and only spoke to remind participants to say what they were thinking if they became silent while working. At the end of the think-aloud, I asked participants a few clarifying questions about their experience working with the case. For example, in order to ascertain whether the think-aloud lesson was a typical representation of their interactions with the CSRL cases, I asked if and how their approach to completing the first lesson of the case was dissimilar to how they would complete another lesson in the same case. Think-alouds were conducted in person, took approximately 45-60 minutes, and were held in settings of participants' choice that were convenient for them (e.g., classrooms, homes, and libraries). I transcribed sections of the videotaped think-aloud to characterize participants' typical interactions with the CSRL cases. A complete think-aloud protocol can be found in Appendix H.

Data Collection

Data collection occurred in two cycles. The first cycle of data collection began in May of 2013 with two participants, Ms. Thompson and Ms. Young (hereafter known as C1 for Cycle 1). The second cycle (C2) of data collection began in November of 2013 with the other two participants, Ms. Cooper and Ms. Ward. Both C1 and C2 data collection occurred in the same sequence and within a similar span of time. A timeline for data collection can be found in Table 3.4.

Table 3.4 Timeline of data collection

Phase of study	Prepared and evaluated Lesson 1	Completed 1st and 2nd CSRL case	Think-aloud	Completed 3rd and 4rd CSRL case	Viewed and re-evaluated Lesson 1	Prepared and evaluated Lesson 2
C1	May 2013	June/ July 2013*	Late July 2013	Aug. 2013	Nov./ Dec. 2013	Dec 2013/ Feb 2014
C2	Nov./ Dec. 2013	Jan./ Feb 2014**	Feb. 2014	Feb./March 2014	March/April 2014	April/ May 2014

*The first date listed refers to Ms. Thompson's timeline and the second date is Ms. Young's timeline of data collection **The first date listed refers to Ms. Cooper and the second is Ms. Ward's timeline of data collection

Prepared and evaluated Lesson 1. When participants consented to participate in the study, we scheduled the videotaping of Lesson 1 immediately. To prepare participants for videotaping Lesson 1 and 2, I emailed instructions to guide their decisions as they prepared their lessons. I encouraged participants to teach a lesson they would normally teach (based on their curriculum, the time of year, and what they thought their students needed at the time) rather than teaching a special lesson just for the study. Additionally, I asked participants to plan a lesson in which they provided instruction most of the time, so that when the participant viewed the lesson, they would primarily view themselves teaching (as opposed to students working independently). Further, I asked participants to select a text-based comprehension lesson so that Lesson 1 and Lesson 2 would align with the content of the lessons within the CSRL cases (which are also text-based reading

comprehension lessons). Finally, I encouraged participants to videotape lessons that included between 15 and 20 minutes of teacher led instructional time in order to keep the task of viewing and evaluating their own instruction as manageable as possible.

I interviewed participants before they videotaped each lesson (Lesson 1 and 2) in order to gather information concerning how participants planned for the lesson and the purpose of the lesson. After participants taught the lesson, I interviewed them again to debrief how they thought the lesson went and if there were any changes they had made to the lesson in the moment. An interview protocol for both of these interviews can be found in Appendix I.

Following the taping of Lesson 1, I mailed participants a DVD of Lesson 1 to view and analyze independently. I included guidelines for evaluating their instruction with the DVD (printed hardcopy) and emailed an electronic copy to participants as well. In the guidelines, I asked participants to note aspects of their instruction they thought were effective for student learning, and the aspects of their instruction important to student learning they thought needed improvement. A complete list of the guidelines given to participants can be found in Appendix J.

Once participants completed their evaluation of Lesson 1, we scheduled an interview to discuss participants' analysis of their own instruction. For the most part, evaluation interviews were conducted within two weeks of their evaluation; however, Ms. Ward's interview was delayed by two weeks due to an illness and her holiday break.

Completed first and second CSRL case. At the conclusion of the Lesson 1 evaluation interview, participants and I went through a practice case so I could demonstrate how to navigate the CSRL website. Afterwards, I emailed participants

directions for how to access the CSRL cases by means of the CSRL website. I included in the email instructions for how to complete the cases, reminders for navigating the system, and the TQs Response document. I asked participants to complete the CSRL cases in a particular order so the sequence of case completion was consistent across participants. Additionally, I asked participants to respond to the TQs before accessing the *Teacher Reflection* or the *Literacy Specialists' Comments* so that participants' responses to the TQs would not be influenced by these features of the CSRL cases. A complete list of instructions and reminders can be found in Appendix K.

I asked participants in C1 to complete one case each week for four weeks as they were completing the cases over the summer. However, I asked C2 participants to complete one case a month to be sensitive to their hectic schedules as C2 teachers were completing the cases during the school year and over the holidays. During this time when participants were working independently on the cases, I checked in by way of phone calls and emails to encourage participants to keep progressing though their first and second assigned cases on schedule. Ms. Cooper, accidentally completed the practice case, *Tanya Brown Models Self-monitoring Strategies*, for her first CSRL case, instead of the case participants had been assigned.

Participants engaged in think-alouds. After participants completed the first two CSRL cases, we scheduled the think-aloud. During Ms. Ward's think-aloud, the website was unavailable, consequently Ms. Ward did not have access to the third case, *Karla Smith Integrates Literacy and Social Studies*, that the other participants had completed for their think-aloud. Therefore, Ms. Ward completed the fourth case, *Christina Williams: Teaching*

Narrative Structures, for the think-aloud, because the case was available on an external hard drive, via PDF files.

Completed third and fourth case. Given the nature of teachers' busy schedules, participants in C1 did not complete a case a week; rather, on average, case completion rate for both C1 and C2 was one case per month. Upon completion of the CSRL cases, participants turned in their Thinking Questions Response document. Ms. Cooper and Ms. Ward chose to complete the document by hand (on a printed hardcopy), while Ms. Thompson and Ms. Young responded to the TQs electronically.

Viewed and re-evaluated Lesson 1. When participants completed the CSRL cases, I emailed directions for how to re-evaluate Lesson 1 and the re-evaluation interview was scheduled. I conducted the re-evaluation interviews in person for the most part, however, Ms. Young and I discussed her re-evaluation of Lesson 1 over the phone due to scheduling conflicts.

Prepared and evaluated Lesson 2. Following the re-evaluation interview, we scheduled the taping of the Lesson 2. After Lesson 2 was videotaped, I mailed participants a DVD of Lesson 2 and asked them to view and evaluate their own instruction using the same procedures used with Lesson 1. Once participants completed their evaluation of their lesson, we scheduled the interview to discuss participants' Lesson 2 evaluation within two weeks of their evaluation. At the conclusion of this interview, participants received $100 and a certificate of completion in appreciation for their contribution to the study.

Data Analysis

In the following section**,** a detailed description is provided of the methods used to investigate the overarching research question, *What does engaging in a video-based case*

approach to lesson analysis reveal about participants' analytic expertise? Broadly, I analyzed features of participants' own instruction discussed during the Lesson 1, Lesson 2, and re-evaluation interviews, evaluations of the CSRL cases, and think-alouds using qualitative methods to explore (a) how participants evaluated instruction, (b) what aspects of instruction participants discussed, and (c) how they discussed their evaluations of instruction. When applicable, a research assistant and I analyzed participants' evaluations of their own instruction for alignment between the TQs and the features participants discussed. Additionally, participants' evaluations of the CSRL cases were analyzed for alignment with Reading Specialists' evaluations of the cases. Finally, I drew from prior studies of analytic expertise to establish indices of analytic expertise to examine whether participants in this study exhibited characteristics of expert analysis. Table 3.5 displays the research questions by data source and method of analysis.

Table 3.5 Research question by data source and method of analysis

Research Question	Data Sources and Method of Analysis
1) *Overarching question: What does engaging in a video-based case approach to lesson analysis reveal about participants' analytic expertise?*	(a) **Think-alouds** provided insight into participants' interactions with the CSRL environment (e.g., how much time participants spent with particular features, what features did participants access and not access). Sections of the think-aloud were transcribed and interactions with the CSRL system were utilized for descriptive purposes (b) **Open-ended written responses to TQs** were segmented by feature of instruction discussed, and the content of instruction discussed was assessed for alignment with Reading Specialists' evaluations (c) **Likert scale TQs ratings** were used to gauge participants' perception of the quality of instruction presented in the CSRL cases (d) **Evaluation interviews for Lesson 1 and Lesson 2** were analyzed using open coding and an analysis of alignment of the features participants identified with the TQs

2) *What does engaging in a video-based case approach to lesson analysis reveal about participants' ability to analyze other teachers' video-recorded reading instruction?*	1. **Think-alouds** (see description above) 2. **Open-ended written responses to TQs** (see description above) 3. **Likert scale TQs ratings** (see description above)
3) *What does engaging in a video-based case approach to lesson analysis reveal about participants' analysis of their own video-recorded reading instruction?*	1) **Evaluation interviews for Lesson 1 and Lesson 2** (see description above) 2. **Think-alouds** (see description above)

I conducted data analysis in four stages. In the first stage, I prepared data to determine alignment between the TQs and the features participants discussed. Additionally, I prepared participants' evaluations of the CSRL cases for analysis to determine alignment with Reading Specialists' evaluations of the cases. In the second stage, I used the TQs and the Reading Specialists' evaluations of the cases to create alignment tools to examine data. In the third stage, a research assistant and I coded data for indices of analytic expertise. In the fourth stage, I compiled data and all results were examined for each individual participant, as well as across all four participants (i.e., cross-case analysis).

Stage 1: Preparation for the application of alignment codes

In the first stage of analysis, I prepared data for analysis of alignment with the TQs and the Reading Specialists' evaluations of the CSRL cases. First, I open-coded participants'

evaluations of their own instruction (transcribed interviews) line-by-line to identify, name, and categorize what participants discussed and how to make sense of how participants evaluated their own instruction. I then similarly prepared participants' evaluations of the CSRL cases (written responses) for analysis to determine alignment with Reading Specialists' evaluations.

Participants' evaluations of their own instruction. Participants' audio-recorded Lesson 1, Lesson 2, and re-evaluation of Lesson 1 interviews were professionally transcribed. I read transcribed interviews for accuracy and made corrections as needed. Participants' evaluations of their own instruction were then open coded (Corbin & Strauss, 2008). To open code the data, I first segmented interviews by interview question, and then segmented instances in the transcripts in which participants discussed their evaluations by thought units. I defined thought units as segments of transcript in which a participant discussed a particular topic (Rosaen et al., 2013). Because participants were asked to identify and discuss the features of their instruction they found to be the most salient (i.e., critical), I termed thought units as "features." Segmented features (i.e., thought units) were often signaled by transition statements such as, "another aspect of the instruction I thought was effective was…" or "I also thought… needed improvement because… " I then categorized each feature as (a) effective, (b) in need of improvement, or (c) neither (non-evaluative). I started with the first two categories, "effective" and "in need of improvement" because participants were specifically asked to discuss them in their evaluation interviews and later added the third category, "neither" in the course of coding. Segmented features varied in length, depending on how much a participant discussed an aspect of their

instruction. For example, some features were a paragraph long, while others spanned multiple paragraphs.

I then characterized the content of the features by generating brief descriptions that captured the essence of what participants discussed (Weiss, 1994). To characterize the features, I either quoted or paraphrased small portions of participants' evaluations in which the participant stated the aspect of their instruction they found salient for student learning. The characterizations varied from pedagogical practices such as "modeling during small group instruction" and "reviewing new vocabulary during the mini lesson" to "calm and kind management of student behavior." During this first stage of analysis, memos noting themes, trends, and insights, were written as transcripts were read and re-read and codes were developed (Corbin & Strauss, 2008).

While the characterizations of the evaluations discussed above provided insight into *what* aspects of their own instruction participants considered more and less effective, more fine-grain analysis was necessary to investigate *how* participants discussed their evaluations. To investigate how participants discussed their evaluated instruction, I parsed out segmented features into individual propositions. For example, a segmented feature in which a participant discussed that knowing her students as readers was an effective feature of her instruction was further parsed out to capture discussion moves as the participant discussed the feature of instruction. Individual propositions were identified in the text by segmenting complete thoughts. Propositions could be meaningful phrases or complete sentences. I developed codes developed to capture various discussion moves. Codes included (a) identifies feature, (b) provides a reason why the feature is critical to student learning, (c) offers principle of teaching and learning when discussing why feature

is important for student learning, (d) gives reason for why feature is important for student learning specific to their own students. Definitions and exemplars of codes can be found in Appendix L. A second researcher verified segmenting and codes to meet established coding protocols for 20% of the data to establish interrater reliability of at least 80% (Neuendorf, 2002).

Participants' open-ended written responses to the CSRL cases. Participants' open-ended written responses to the TQs concerning the instruction presented in the CSRL cases were also prepared for further analysis. I collected and organized participant open-ended written responses in a table format for coding purposes. Then, I segmented written responses to the open-ended TQs by thought units. A thought unit was segmented when participants moved from discussing one aspect of the instruction to discussing a new topic of instruction. New thought units in writing were apparent by transition statements such as, "Additionally…" or "I also think that…" or "Another way she could improve the lesson would be…." Since participants were asked to comment on a few effective features and provide a few suggestions for each lesson, thought units were further categorized as either effective features or suggestions. Effective features and suggestions participants discussed were organized by lessons within a given case. For example, all of the effective features a participant discussed pertaining to the first lesson of the second case would be grouped together in the coding table.

Stage 2 of Analysis: Development and Application of Alignment Tables

In the second stage of analysis, one of the guiding hypotheses concerning characteristics of analytic expertise established in the literature was examined. Although I drew from multiple characteristics of analytic expertise established in the literature for this

study, only one characteristic was utilized for this phase of the study (the others were part of a subsequent phase of analysis). The characteristic of analytic expertise examined in this phase of analysis was that expert teachers are more likely to identify key concepts of the instruction (Sato et al., 1993), while novice teachers are less likely to identify relevant issues in the instruction (Krull et al., 2007). As previously discussed in the *Guiding Hypotheses* section, this tendency is described as discussing "significant and relevant features" of instruction. To assess whether participants discussed significant and relevant features of instruction, the features of instruction participants discussed were examined for alignment with the TQs and Reading Specialists' evaluations.

Development and application of the TQ Alignment Table. To determine whether the features of instruction participants identified and discussed about their own instruction were significant and relevant features of instruction, a research assistant and I conducted an analysis of alignment with the TQs and applied a second level of codes. Alignment with the TQs suggests participants' identification of significant and relevant features because the TQs were designed to draw users' attention to features of instruction important for student learning. The phrasing "significant and relevant features" was borrowed from language used in prior studies of analytic expertise and does not imply that the other features of instruction participants discussed were "insignificant and irrelevant." Rather, features not coded as "significant and relevant" are just not as squarely focused on aspects of instruction pertaining to student learning the TQs emphasize.

To do this coding, I created a code table with the three Thinking Question dimensions (i.e. Lesson Purpose and Design, Instruction, Student Engagement and Participation), with corresponding TQs. For example, if a participant discussed the pace of

the lesson as being a critical feature of the instruction that needed improvement, then that critical feature was coded as aligning with the Instruction dimension of the Thinking Questions, because considering the pace of the lesson is one of the TQs in the Instruction dimension. A second researcher verified TQ alignment codes to meet established coding protocols for 20% of the data to establish interrater reliability of at least 80% (Neuendorf, 2002). Discrepancies in segmenting or coding were discussed until a consensus was reached. For this analysis, the second researcher and I established interrater reliability over a series of meetings. The first time we compared codes for alignment, our alignment was at 63%. The codebook was adjusted to clarify codes as needed. At the second meeting, our alignment was at 77%, and again, the codebook was updated as needed. And finally, the third time we met, our percentage of agreement was at 85%, and the codebook was updated a final time. Definitions and exemplars of codes for the TQ Alignment Table can be found in Appendix M.

Development and application of the Reading Specialists' Alignment Table. In this phase of analysis, I also compared features of instruction participants discussed (i.e., effective features and suggestions) while evaluating the CSRL cases to the Reading Specialists' evaluations. Alignment between the features of instruction participants discussed and the Reading Specialists' evaluations was used as evidence of participants' identification of significant and relevant features of instruction because experienced teachers (i.e., Reading Specialists) tend to identify and discuss key concepts of instruction (Krull et al., 2007; Sato, 1993). The reading specialists who contributed their evaluations of the CSRL cases had over 10 years of teaching experience, were prior early elementary

classroom teachers, were current Reading Recovery teachers at the time of the study, and held master degrees in education.

To develop the Reading Specialist alignment table, the Reading Specialists evaluated the CSRL cases via the CSRL website and identified features of the instruction they considered effective for student learning and suggestions for how to improve student learning. I gave Reading Specialists the same instructions that participants received for completing the CSRL cases, and they had access to the same features of the cases (e.g., *About the Lesson*, *Materials*, *Teacher Reflections*). Reading Specialists only completed the first lesson of each case for analysis purposes.

To create the Reading Specialists Alignment Table, the Reading Specialists' evaluations were collected and organized in a table for coding purposes. Reading Specialists' evaluations were prepared for analysis in the same manner participants' evaluations were prepared. To prepare the Reading Specialists' evaluations (i.e., written responses to the open-ended TQs) I (a) segmented evaluations by thought units, (b) categorized thought units as effective feature or suggestion, (c) grouped features by the first lesson of each of the four CSRL cases. The Reading Specialists Alignment Table was comprised of three columns and was used for coding purposes. The first column of the table contained the features of instruction discussed by a particular participant, and the second and third column contained the features discussed by the Reading Specialists (i.e., column 2 contained the features for one Reading Specialist and column 3 was comprised of the features discussed by the other Reading Specialist). The content of features was compared across Reading Specialists and overlap of topics discussed was highlighted.

I entered participants' features into the Reading Specialists Alignment Table to determine alignment across the features participants identified and the features of instruction the Reading Specialists identified. For example, for one lesson the Reading Specialists and Ms. Young discussed that the case teacher's use of "turn and talks" was an effective aspect of the instruction for the first lesson of the second case. Therefore, this feature of instruction Ms. Young discussed was coded as a significant and relevant feature. I then entered all codes into a spreadsheet for individual participants across evaluation interviews and CSRL cases. Definitions and exemplars of codes for the Reading Specialists' Alignment Tool can be found in Appendix N.

Stage 3 of Analysis: Established Criteria Used to Assess Analytic Expertise

In the third stage of analysis, to address the overarching research question, *What does engaging in a video-based case approach to lesson analysis reveal about participants' analytic expertise?* I drew from studies of analytic expertise to examine whether participants in this study exhibited characteristics of expert analysis. To test the remaining hypotheses I examined the following indices of analytic expertise, (a) the extent to which participants discussed instruction explanatorily (Berliner, 1998; Krull et al., 2007; Sato et al., 1993), (b) whether participants discussed instruction interpretatively by providing principles of teaching and learning to support their claims made about the effectiveness of the instruction, rather than idiosyncratic explanations specific to the students in the lesson (van Es & Sherin, 2002; 2008; 2010; Krull et al., 2007), and (c) whether participants discussed more instructional content (when compared to other participants or compared across various time points in the study) (Sato et al., 1993).

Explanatory nature of discussed features. The degree to which participants discussed instruction explanatorily was evaluated in this study by examining whether participants provided reasons for why the critical features they identified when evaluating the case teachers' instruction were either effective or in need of improvement. Participants' evaluations of the CSRL cases were included for this analysis, however their discussions of their own instruction were not. This decision was made because participants occasionally received prompts during the evaluation interviews to provide reasons for why the features they discussed were important for students learning. These prompts, which were inconsistently used, likely impacted the participants' responses. Participants were not prompted to provide reasons while discussing the CSRL cases; therefore, the extent to which participants provided reasons for their claims of effectiveness while evaluating the cases was left up to the individual participant and their natural inclination to do so (or not).

The critical features of instruction participants identified concerning effectiveness and suggestions for improving the instruction were coded according to whether or not teachers provided a reason for why the critical features were important for student learning, and therefore critical features were coded as either explanatory or not explanatory. In the following excerpt taken from a participant's written evaluation, the reason the participant provided for why the feature discussed is important for student learning is underlined. While discussing the first lesson of the first case, *Leena Zeeban Builds ELL Students' Language and Literacy*, Ms. Thompson suggested that the case teacher needed to reconsider her use of the KWL because it led the discussion off topic and contributed to student confusion. Ms. Thompson writes,

> I also think she should have reconsidered using the KWL chart. It seemed to take the discussion way off topic, contributing to the confusion. The KWL did not seem to be

> paired well with the text. Or perhaps the text was not paired well with what she wanted the kids to learn. I think starting with the learning goal in mind, and then reconsidering the best tools available to teach that point, would have really improved this lesson. (Ms. Thompson, evaluation of Case 1)

In this excerpt, Ms. Thompson first states the feature of instruction that is not effective (use of the KWL chart). Then she explains why this aspect of the case teacher's lesson is ineffective (e.g., leads to confusion). And finally, Ms. Thompson states her suggestion for how to improve the lesson. This feature would be coded as providing a reason and would be considered explanatory. On the other hand, while discussing the effective features of the first lesson of the third case, *Karla Smith Integrates Literacy and Social Studies*, Ms. Ward states a feature that is effective but does not provide a reason for why it is effective. Ms. Thompson writes, "Made connections across the curriculum (reading, writing, social studies)." This feature was coded as not having a reason and was therefore not considered explanatory.

Interpretative nature of discussed features. The extent to which participants in this study were interpretative in their evaluations of instruction was determined by examining the degree to which participants supported their claims made about the effectiveness of the instruction with principles of teaching and learning, as opposed to explanations specific to the students in the lesson. I included participants' evaluations of their own instruction for this analysis, because participants were asked to explain why they identified each feature of instruction discussed for the evaluation interviews. However, for the CSRL cases, participants were not asked to discuss why they identified features of instruction as effective or in need of improvement, therefore the evaluations of the CSRL cases are not included in this analysis.

The use of principles of teaching and learning was seen as more interpretative than citing reasons specific to their particular students, because discussing one's claims of effectiveness in principles requires participants to think about their instruction within the "norms for knowledge and discourse with the profession" of teaching (Ball & Cohen, 1999). Additionally, we know that expert teachers' knowledge is "connected and organized around important ideas" of teaching and learning (Bransford et al., 2005, p. 41), therefore, teachers' use of principles of teaching and learning, as opposed to reasons specific to their own students, was seen as a more expert way to discuss instruction.

For a reason to be considered a principle, teachers had to explain their reasoning behind claims of effectiveness in ways that approach issues of teaching and learning as generalizable, rather than only applicable to one specific student or group of students. For instance, Ms. Cooper explained that teaching from units of study is effective for student learning because the lessons taught each day are not isolated skills, but rather lessons that "build thinking patterns of readers and the work that they do" (Ms. Cooper, Lesson 2 evaluation interview). And an example of a reason specific to her own students that Ms. Young discussed was how she read the text slowly and with a lot of expression. She said this was effective for her students' learning because her students seemed more interested in the story and more focused compared to other times she read to them with less expression.

Discussing more content while evaluating instruction. Sato et al. (1993) found that expert teachers discussed more content of the instruction viewed than novice teachers before and after viewing a video of a fifth grade poetry lesson. In this study, I examined the number of features discussed by participants at each time point (e.g., Lesson 1 evaluation

interview, CSRL case evaluations, re-evaluation interview) and whether participants increased or decreased in the number of features of their own and others' instruction they discussed over the course of the study.

Compiling codes. All codes were added to existing spreadsheets for individual participants across evaluation interviews and CSRL cases. Definitions and exemplars of codes can be found in Appendix L.

Stage 4 of Analysis: Data were Compared Across the Study and Across Participants

In the fourth stage of analysis, data were compared across the study (i.e., evaluation interviews and CSRL cases) and across participants. In this section, I discuss (a) think-aloud videos, (b) coding tables, (c) memo writing, (d) cross-case analysis coding tables, (e) cross-case analysis memo writing.

Think-aloud videos. To characterize how participants engaged with the CSRL environment and what they valued about the features of CSRL, I reviewed videotaped think-alouds and transcribed relevant segments of the think-aloud videos. In particular, I noted the features of CSRL participants engaged with and how they engaged with each feature (e.g., what participants said, any notes that were taken). Video footage of think-alouds was timed to create usage logs to report how long participants worked with each feature of CSRL. Finally, I wrote memos to characterize patterns in participants' interactions with the CSRL cases (e.g., the order in which participants accessed features of CSRL, whether participants read or skimmed text, if and when participants re-accessed a CSRL feature). I referenced these memos while drafting descriptions of participants' engagement with the think-aloud case.

Coding tables. To characterize participants' analytic expertise, I made tables to examine each index of analytic expertise for participants' (a) significant and relevant features discussed, (b) number of features discussed, (c) frequency of reasons given for claims of effectiveness, (d) quality of reasons given for claims of effectiveness. The columns of these tables included findings from each evaluation interview (a) Lesson 1 evaluation, (b) re-evaluation, and (c) Lesson 2 evaluation. Tables with participants' evaluations of others' instruction were organized by case (e.g., Case 1, Case 2). The rows of each table included (a) effective features, (b) features in need of improvement, and (c) total features (effective features and suggestions combined). An example coding table can be found in Appendix O.

Memo writing. For each table, I wrote brief memos (a short paragraph) for the purpose of identifying patterns in participants' evaluations of their own and others' instruction specific to analytic expertise (e.g., if the frequency of a particular index of analytic expertise increased or decreased over the course of the study). I noted patterns across effective features and features in need of improvement, as well as patterns across CSRL cases and evaluation interviews (e.g., the dimensions of TQs participants discussed most, least). Finally, I used these memos to engage in further analysis through writing a series of drafts to consolidate findings and form connections related to the guiding hypotheses and research questions. Through this process, the following prominent patterns characterizing what features of instruction participants discussed and how they discussed their evaluations were evident a) the significant and relevant features of instruction discussed, (b) the numbers of features discussed, and (c) the evidence for

claims of effectiveness provided. Relevant sections of these drafts were used to characterize participants' analytic expertise in Chapter 4.

Cross-case analysis coding tables. For the cross-case analysis, I examined trends across participants specific to established criteria for analytic expertise. I compared data across participants examining (a) significant and relevant features discussed, (b) number of features discussed, (c) frequency of reasons given for claims of effectiveness, (d) quality of reasons given for claims of effectiveness. For the cross-case analysis, I combined all four participants' data for each established criterion into tables to look for patterns across participants. These tables were organized similarly to the tables created to characterize individual participants ' analytic expertise (i.e., depending on data being examined columns were either by evaluation interview or CSRL case). See appendix P for an example cross-case coding table.

Cross-case analysis memo writing. To examine participants' analysis of their own instruction, I wrote brief memos (a short paragraph) for each cross-case coding table, identifying and discussing patterns across Lesson 1, re-evaluation, and Lesson 2 evaluation interviews (e.g., the frequency of a particular index of analytic expertise across participants). I noted patterns across effective features and features in need of improvement. To examine participants' analysis of others' instruction, I wrote memos for each table, discussing patterns across participants' evaluations of the four CSRL cases. I drew from these memos to draft the cross-case analysis chapter.

Summary of Methods

In this chapter, I began with an overview of the research design and a description of CSRL. Then I described in detail the participants in the study. Next, I provided an overview

of the methodology, as well as a description of data sources, procedures for data collection, and data analysis. In the following chapter, Chapter 4, I discuss findings for each participant.

CHAPTER 4

FINDINGS

In this chapter, I present findings for each participant to address the overarching research question, *What does engaging in a video-based case approach to lesson analysis reveal about participants' analytic expertise?* Analytic expertise, in this study, involves assessing whether established goals have been met in a lesson, identifying well-supported hypotheses for why the lesson did or did not go well, and then using these hypotheses to revise the lesson (Hiebert et al., 2007). To contextualize the findings, I describe the research context, including background information about the participant, her school and literacy curriculum, the classroom context, and a description of the lessons participants taught before and after evaluating the CSRL cases studies (i.e., Lesson 1 and Lesson 2) and participants' evaluations of the think-aloud lesson. This information is presented for each participant, as there is considerable variation across participants (e.g., teaching philosophies, instructional approaches, context of lesson), and how participants planned, taught, and reflected on their own instruction for Lesson 1 and Lesson 2 provides further insight into analytic expertise.

In addition to contextual and background information, prominent patterns in how participants evaluated early reading instruction are included in an effort to characterize

participants as analysts of instruction. Finally, I directly address how the findings answer the guiding research questions: how participants evaluated others' instruction, and how participants evaluated their own instruction and what this revealed about their analytic expertise. Participants are presented in the following order (a) Ms. Young, (b) Ms. Thompson, (c) Ms. Ward, and (d) Ms. Cooper. In Chapter 5, I discuss a cross-case comparison of participant results.

Ms. Young

Teacher Background

At the beginning of the study, Ms. Young taught second grade in a Midwest urban school district and was in her first year of teaching. Ms. Young began the study in the spring of 2013 and finished the study in the winter of 2014; therefore, Lesson 1 (before completing the CSRL cases) involved her students from the 2012/2013 academic school year, and Lesson 2 (after completing the CSRL cases) was delivered to a new group of students and in a new school district. In fall of 2013, Ms. Young accepted a position as an ELL teacher in another Midwest urban school district.

While discussing her experience analyzing videotaped instruction prior to the study, Ms. Young recounted numerous opportunities to evaluate videotaped instruction in her one-year teacher certification master's program. At the start of her program, she and her peers viewed and evaluated video of other teachers' instruction, and later in the program, they viewed and evaluated videos of their own teaching. Ms. Young learned a lot about evaluating instruction, her own and others', during her master's program. She recounted being primarily critical of herself and her instruction; however, later in the program she learned to appreciate areas of growth as well as areas to improve. She

believed that her work evaluating her own lessons and others' in her master's program had enabled her to be more objective and consider how the context of the lesson impacts the instruction.

Classroom Context and Curriculum

Context of Lesson 1. State standards and the Common Core State Standards (National Governors Association Center for Best Practices & Council of Chief State School Officers, 2010) dictated the reading curriculum for Ms. Young's school for Lesson 1. In second grade, (and throughout the elementary level), teachers were encouraged to teach a balanced literacy approach to reading and writing, and were guided by the work of Irene Fountas and Gay Su Pinnell. This balanced literacy approach incorporated phonics, comprehension, and thinking as readers and writers.

As a general education teacher, Ms. Young said her role as a literacy teacher was to provide students with text at their instructional levels. She sought to meet the needs of students who were above and below grade level expectations. She focused mainly on comprehension, and encouraged students to develop a love of books, language, and storytelling through read alouds and discussions of rich and interesting children's literature. She tended to spend more time on these aspects of reading and less time on phonics and word work.

Context of Lesson 2. Ms. Young taught Lesson 2 in a different school district. For Lesson 2, Ms. Young taught a small group of English language learners (ELL) who were in the "Newcomer Program" (i.e., students with little or no English language skills and who had never experienced school in a formal setting). In this program, students were taught

English language skills through immersion in spoken and written English. Class work typically included oral language, group and partner work, and shared writing.

As an ELL teacher, Ms. Young saw her role as a literacy teacher as an advocate for her students in their general education classrooms because her students were frequently taught alongside "intermediate students" (i.e., students with somewhat developed English language literacy skills). Ms. Young reported that the misalignment in grouping students occurred at her school as a result of a large population of intermediate students. Classroom teachers and reading interventionists at her school (neither were ESL certified) seemed unaware of the vast differences in learning needs across the two groups of students. Ms. Young suspected much of the literacy instruction her students received was ineffective—and possibly harmful—for their literacy development. Ms. Young wanted more time with her students to work on oral English skills before entering a formal reading program.

Description of Lesson 1 and Lesson 2

In this section, I describe the two lessons Ms. Young taught, videotaped, and evaluated during the study. Before working with the CSRL cases, participants taught, videotaped, and evaluated Lesson 1. Then, after completing the CSRL cases, participants re-evaluated Lesson 1 and taught, videotaped, and evaluated Lesson 2. For each lesson, I include a description of Ms. Young's (a) plan for the lesson, (b) enactment of the lesson, (c) reflection of how she thought the lesson went. A thorough depiction of Lesson 1 and Lesson 2 are provided to contextualize Ms. Young's evaluation of her own instruction presented later in this chapter.

Lesson 1: *Using What Characters Think and Do to Understand How Characters Feel.* The purpose of Lesson 1 was for students to learn to use what characters think and do

in the story in order to make inferences about how characters are feeling. Ms. Young decided to teach this whole group lesson on making inferences because she had noticed her students were not making inferences about characters during their guided reading lessons.

Plan for Lesson 1. To plan for this lesson, Ms. Young adapted a lesson plan from a teacher in her grade level team. She kept the basic structure of the lesson but decided to use a different book for her students because her students had previously enjoyed historical fiction books similar to *Uncle Jed's Barber Shop*. The day before Lesson 1, Ms. Young had read half of the book, *Uncle Jed's Barbershop,* and modeled for her students how to pay close attention to a character's thoughts and actions to think about how the character feels. Ms. Young demonstrated for her students how to record what Uncle Jed does and thinks on a chart with three labeled columns. The three columns on the chart read (a) "Actions", (b) "Thoughts", and (c) "Feelings." For Lesson 1, Ms. Young planned to assist students in completing the chart for the rest of the story.

Ms. Young's students often described characters in vague terms (e.g., as "nice" or "a good person"); therefore a major goal for this lesson was to push students to use explanatory and precise language. Ms. Young expected students to easily identify what characters say and do, but to struggle with using descriptive language when discussing Uncle Jed's feelings.

Enactment of Lesson 1. To begin Lesson 1, Ms. Young reviewed what the class recorded on the chart the day before and reminded her students to pay close attention to what Uncle Jed does and thinks, because this information shows readers what he feels. She also reminded students that when they notice what Uncle Jed says and does, they need to add this information to the chart. Before reading the text, Ms. Young asked a student to

share his prediction with the class about what he thought would happen next in the story (which he had brought up the previous day). While reading the text, Ms. Young stopped periodically to ask, “What did Uncle Jed do?” or “What is Uncle Jed thinking?” and then asked, “What does this tell us about how Uncle Jed is feeling?” After discussing these questions as a group, she added student responses to their chart. While reading the text, Ms. Young had to support students’ understanding of events in the story, as confusion in the storyline was evident in student responses and questions.

After reading the text and filling out the chart, Ms. Young asked her students to respond in writing to the questions, “What kind of person is Uncle Jed?” and, “What makes him special?” Students went back to their seats and answered these questions in their writing journals. The questions were written on the whiteboard, and the chart they filled out was moved to the white board so students could reference the questions and the chart while writing. Ms. Young circulated around the room, addressed questions, and gave support as needed.

When most students had finished writing, Ms. Young called everyone to bring their journals to carpet to share their response with the class. To begin the discussion, Ms. Young asked, “What kind of person is Uncle Jed? What makes him special?” A few students shared with the whole group; Ms. Young often extended what students shared. For example, one student explained how even though Uncle Jed could not open his barbershop up when he wanted, he did not get angry. Ms. Young annotated this by saying, “Oh, so Uncle Jed is someone who keeps his feelings under control.” Students then shared their writing in pairs, and Ms. Young led another brief whole class discussion summarizing what the class learned about Uncle Jed. Table 4.1 shows the amount of time lapsed during each stage of Lesson 1.

Table 4.1 Lesson 1 time breakdown

Part of lesson	Reading and discussing book	Independent writing time	Whole group share	Total lesson time
Amount of time (minutes)	26	10	7	43

Reflection on Lesson 1. As Ms. Young anticipated, her students identified Uncle Jed's thoughts and actions well, but struggled with inferring his feelings. During the writing portion of the lesson, Ms. Young thought partner conversations were productive and everyone was able to synthesize and incorporate into their writing what the class had previously recorded about Uncle Jed. However, Ms. Young was concerned that the lesson went longer than she expected. She also thought the book was too challenging because she spent a lot of time helping students understand what was happening in the story during the reading portion of the lesson.

Ms. Young was pleased that her student who shared his prediction was engaged and participated during the lesson. She suspected he had participated because she had set him up ahead of time to contribute his prediction. However, she was concerned about another student who was not engaged during the lesson and wondered if he needed encouragement and preparation before the lesson to participate as well. She wondered if she lost some student engagement as a whole because she stopped too many times while reading. In the future, Ms. Young may ask her students to record their thinking on their own charts to improve engagement and participation while reading the text.

To follow up on Lesson 1, Ms. Young considered giving students a writing prompt about Uncle Jed during their morning message time the following day. She also planned to

revisit the objective of inferring characters' feelings in a read aloud with another text the following week.

Description of Lesson 2: *Pete the Cat: I Love My White Shoes*. Prior to Lesson 2, Ms. Young worked on building students' basic oral language using her schools' scripted curriculum. Ms. Young wanted to incorporate shared readings to continue working on oral English language skills in a more interactive way.

Plan for Lesson 2. For Lesson 2, Ms. Young planned a shared reading using the book, *Pete the Cat: I Love My White Shoes,* with her six students in the "Newcomers" group. Ms. Young chose this book for the read aloud because the text is a song students are familiar with so students could sing along as she read. Ms. Young's objectives for this lesson included (a) students will sing along with the text, (b) students will demonstrate understanding of the text through a card matching activity, and (c) students will review colors they previously learned.

Enactment of Lesson 2. To begin, Ms. Young previewed recurring words in the text that were important for comprehension (e.g., red, blue, strawberries). To review, Ms. Young said a word, her students repeated it, and then she described the word. For example, when describing the word "wet," Ms. Young filled a cup with water and said, "When I put my hand in this water, my hand is wet." She let each student put his or her hand in the water and each student said, "wet."

After previewing and discussing these words and concepts, Ms. Young introduced the book, *Pete the Cat: I Love My White Shoes*. As she read, Ms. Young encouraged students to say the text with her from memory. Students sang repetitive sections of the book along with her. While reading, Ms. Young pointed to and annunciated each word. She periodically

stopped reading to discuss a page of the book (e.g., "Do you notice other things that are red on this page?"), encouraging students to speak often in English.

After reading, Ms. Young explained they would make their own cards with pictures from the book (e.g., pictures of strawberries, blueberries, mud). Ms. Young assisted students as needed and made sure students colored the pictures the correct color (e.g., red strawberries). When students finished coloring their cards, Ms. Young modeled how to sing the song from the book and hold up the colored card that matched the song. She then led the students in reciting the song together, while they held up their own cards. To conclude the lesson, Ms. Young told her students to take their cards home and sing the song with someone in their family. Table 4.2 shows the amount of time lapsed during each stage of Lesson 2.

Table 4.2 Lesson 2 time breakdown

Part of lesson	Introduce book	Read and discuss book	Making cards activity	Total lesson time
Amount of time (minutes)	4.5	8	25	38

Reflection on Lesson 2. Ms. Young thought the lesson went better than she anticipated because her students were more talkative than usual. She was pleasantly surprised that her students were able to put together the language they learned so far in the year, as they were able to respond appropriately to her questions and interact around the text. She was also pleased her lesson took the amount of time she planned for, as she was continuously working on this aspect of her teaching as a new teacher.

Following Lesson 2, Ms. Young planned to review the colors they learned and ask her students if they were able to sing the cards with someone at home. If she taught this

lesson again, she would plan more questions to ask her students because they were speaking more than she expected. For example, she might try a partner "turn and talk" after her next read aloud so that each student would have an opportunity to practice speaking and listening with a peer. Ms. Young planned to incorporate more shared reading lessons into her teaching.

Description of Ms. Young's Evaluations of Other Teachers' Instruction

In this section, I describe Ms. Young's evaluations of other teachers' instruction. Each participant completed one think-aloud for the first lesson of her third CSRL case. The case Ms. Young evaluated for the think-aloud was, *Karla Smith Integrates Literacy and Social Studies,* and the first lesson of this case is, *Thinking as Historians and Readers*. I report how Ms. Young interacted with the think-aloud lesson, and what she valued about the cases in general.

How Ms. Young interacted with the CSRL case. During the think-aloud, Ms. Young generally worked through the lesson in the order the features are presented within CSRL. However, Ms. Young deviated from the suggested order of features by accessing the *Thinking Questions* (*TQs*) before any other feature. She read the TQs first to know what to look for while evaluating the lesson. Occasionally, Ms. Young went back to previously accessed features to re-read. For example, while answering the TQs, she went back to the *Materials* (i.e., photocopies of texts used in the lesson) to verify the case teacher's stated lesson objective. A complete list of the features Ms. Young accessed, how much time she spent with each feature, and the order in which she accessed the features can be found in Table 4.3.

Table 4.3 Features of CSRL usage log

Feature of CSRL	TQs	Over-view	Con-text	About	Mat-erials	TQs	Video	Teach Reflect	Lit Spec	Total time
Accessed	yes	No	yes	yes	yes	yes	yes	yes	yes	
Time (minutes and seconds)	:56	:39	4:38	13:20	3:11	8:48	18:07	2:46	4:56	57:21

When accessing the various features, Ms. Young primarily read the text straight through; however, she skimmed (left off the end of sentences) occasionally. She frequently took notes on aspects of the lesson that stood out to her and referenced these notes while answering the TQs. While reading the TQs, Ms. Young commented that she would look for what the case teacher said about her students' capabilities and background knowledge so she could answer address this question. Later, while reading the *Context* (i.e., contextual information about the school and students), Ms. Young made notes whenever she read something concerning students' capabilities and background knowledge. Further, while evaluating the lesson, Ms. Young made comments connecting the CSRL case lesson to her own teaching. Ms. Young primarily connected her own teaching to the case teacher's instruction, although one comment concerned wanting to try an instructional approach a literacy specialist gave in the *Literacy Specialists' Comments*.

Ms. Young reported that she interacted with the other lessons in a given case similarly to how she completed the lesson during the think-aloud, although she evaluated all of the lessons of a particular CSRL case in one sitting. When Ms. Young evaluated the first lesson of a case, she became familiar with the case teacher (and the context of her lesson) and did not access all of the features for the subsequent lessons. Instead she viewed the video for the following lessons and accessed the other features only as needed.

Additionally, Ms. Young did not always access the *Materials*, unless there was something in the video that she wanted to see up close.

What Ms. Young valued about the CSRL case. Ms. Young discussed that the *About the Lesson* (i.e., the purpose of the lesson) was the most helpful feature of the cases for her because, she said, "I found what the teacher was saying about how she planned the lesson and those behind the scenes things really helpful because you can't glean that from watching the video." Ms. Young found that, if she disagreed with something while viewing the lesson, she appreciated having access to the case teacher's explanations and thinking behind the design of the lesson so that she could better understand what the teacher was hoping to achieve with a particular instructional move. One example of this occurred during the think-aloud when Ms. Young expressed concern over the enactment of the lesson and considered evaluating the lesson as ineffective. However, after re-reading the teacher's thinking behind an instructional decision presented in the *About the Lesson* she adjusted her evaluation.

Ms. Young also reported benefiting from getting instructional ideas from the CSRL cases. Specifically, she discussed benefiting from evaluating the third case, *Karla Smiths' Integration of Social Studies and Literacy*. Ms. Young explained that this (integrating literacy with other content areas) was a struggle for her in her own teaching, and seeing another teacher implement the same third grade curriculum that Ms. Young taught, was helpful for her to think about how she could do the same in her own classroom.

Lastly, Ms. Young discussed appreciating the *Literacy Specialists' Comments.* While discussing why she valued the *Literacy Specialists' Comments*, Ms. Young explained that she was able to identify concerns with a given case lesson, however she had difficulty knowing

how to improve the lesson. Ms. Young said that the *Literacy Specialists' Comments* seemed to help her with this limitation. Further, Ms. Young loved when her evaluations aligned with the Literacy Specialists' evaluations, not because Ms. Young wanted to be "right," but because she took this alignment as evidence that she has improved in her ability to evaluate the cases. Ms. Young found her evaluations for the first lesson of the third case aligned more with the Literacy Specialists' evaluations than any lesson she had previously evaluated. She considered this increased alignment with experts in the field as evidence of her own learning.

Characterizations of Ms. Young's Analytic Expertise

In this section, I address the overarching research question, *What does engaging with video-based cases reveal about participants' analytic expertise?*, by characterizing Ms. Young's analytic expertise during the study. To characterize Ms. Young's analytic expertise, I identified patterns evident in *what* Ms. Young discussed about instruction and *how* she discussed her evaluations of instruction. I present patterns that characterize how Ms. Young evaluated early reading instruction relating to (a) the significant and relevant features of instruction discussed, (b) the numbers of features she discussed, and (c) the evidence for claims of effectiveness she provided. For each characterization, I examine findings specific to participants' own instruction, others' instruction, and differences in participants' evaluations over the course of the study.

Characterization 1: Ms. Young discussed significant and relevant features of instruction with a focus on the SEP dimension. A quality of analytic expertise involves teachers' tendency to discuss significant and relevant features of instruction (Berliner, 1988; Krull et al., 2007; Sato et al., 1993). Participants' ability to identify significant and

relevant features of instruction was evaluated through an analysis of alignment of the features they identified with the TQs. Alignment with the TQs suggests participants' identification of significant and relevant features because the TQs were designed to draw users' attention to features of instruction important for student learning. Remember that the three dimensions of instruction featured in the TQs were (a) Lesson Purpose and Design (hereafter known as LPD) (e.g., Do students understand what they would be learning and why? Was the lesson coherently organized?), (b) Instruction (e.g., Was the text used effectively? Was the pace of the lesson appropriate? Were there clear explanations of the literacy concepts and processes?), and (c) Student Engagement and Participation (hereafter SEP) (e.g., Does the teacher monitor student understanding and participation? Did students work together and share their ideas?).

To discern whether participants' written evaluations of the CSRL cases were significant and relevant, Reading Specialists' evaluations were used as a comparison tool. Recall that alignment between the features of instruction participants discussed and the Reading Specialists' evaluations suggested participants' identification of significant and relevant features of instruction because experienced teachers (i.e., Reading Specialists) tend to identify and discuss core features of instruction (Krull et al., 2007; Sato, 1993). A more complete description of these analyses can be found in the Data Analysis section of Chapter 3.

Discussing significant and relevant features of Ms. Young's own instruction.

When asked to discuss her evaluations of her own instruction (both effective features and features in need of improvement), many of Ms. Young's features aligned with the TQs. Table 4.4 presents how many of her features across the three interviews aligned with the TQs

and were therefore considered significant and relevant. Further, while evaluating her own instruction, Ms. Young primarily discussed features of her instruction pertaining to the SEP dimension. Table 4.5 presents how many features Ms. Young discussed for each dimension across the three interviews.

Table 4.4 Significant and relevant features

Features Discussed	Lesson 1	Re-eval	Lesson 2
Effective	4/7	5/7	2/2
Needs	1/3	8/10	0/1
Total features	5/10 or 50%	13/17 or 76%	2/3 or 67%

Table 4.5 Dimensions of the TQs discussed

Dimension	Lesson 1	Re-eval	Lesson 2
LPD	1	3	1
Instruct	0	1	0
SEP	4	9	1
Non TQ	5	4	1

During the Lesson 1 evaluation interview, half of the features Ms. Young discussed aligned with the TQs. Features of instruction Ms. Young discussed relating to the SEP dimension were how she prepared a student to share something before the whole group lesson, which she felt encouraged him to participate in the lesson, and she pushed students' thinking during the discussion portion of the lesson. In addition to discussing aspects of her instruction having to do with SEP, Ms. Young also discussed a feature pertaining to the LPD dimension. Specifically, she explained that using the same guiding questions throughout her lesson was effective. The features Ms. Young discussed that were not considered significant or relevant features tended to pertain to classroom management and the overall learning environment. For example, she discussed ignoring certain student behaviors, redirecting students, and counting down to get students' attention back after partner sharing.

When Ms. Young re-evaluated Lesson 1, the majority of Ms. Young's features of her own instruction aligned with the TQs (76%), for example, a few relating the SED dimension were having a good combination of student discussion versus teacher discussion, needing to have more whole group checks for understanding, and having students fill out their own charts during the whole group reading of the text for more active engagement. In addition to discussing features pertaining to student engagement, Ms. Young also discussed a few features pertaining to the LPD dimension. For example, she described needing a word bank with descriptive adjectives, and her book choice could have been improved because the content was too challenging for her students to comprehend. Finally, Ms. Young discussed one feature associated with the Instruction dimension, a dimension of the TQs she did not discuss during the Lesson 1 evaluation interview, specifically that her pace for reading the text took too long.

And finally, during the Lesson 2 evaluation interview, most of Ms. Young's features aligned with the TQs (67%). She discussed one feature that pertained to the LPD dimension when she explained that the book choice was effective for where her students were developmentally. And she discussed a feature concerning the SEP dimension; namely, her students participated in the lesson because she helped them to feel comfortable to take risks and try new things. The feature that did not align with the TQs was when she explained needing a record keeping system for assessment purposes as a way to determine whether students met established learning goals for the lesson, which would also be useful for report cards and lesson planning purposes.

Discussing significant and relevant features while evaluating others' instruction. When evaluating the CSRL cases (in writing), Ms. Young discussed features she

thought were effective and suggested how to improve the instruction. For three out of the four cases (case 1, 3, and 4), less than half of the features she discussed aligned with the Reading Specialists. While more than half of the features Ms. Young discussed for case 2 aligned with the Reading Specialists' evaluations (67%). Table 4.6 displays how many features aligned with the Reading Specialists' evaluations for each case.

Table 4.6 Significant and relevant features discussed (of others' instruction)

Features Discussed	Case 1	Case 2	Case 3	Case 4
Effective	2/4	2/2	1/3	½
Needs	0/2	2/4	1/3	0/2
Total features	2/6 or 33%	4/6 or 67%	2/6 or 33%	¼ or 25%

For the first case, *Leena Zeeban Builds ELL Students' Language and Literacy*, a couple of significant and relevant features Ms. Young described were that the case teacher's rapport with her students was effective, and her work with vocabulary words was effective. For the second case, *Kate Kaufmann: Lessons on Character Study*, a few of the significant and relevant features Ms. Young evaluated were the use of a familiar text and that the turn-and-talks were effective; she suggested to save time that the case teacher should have only read sections of the book pertaining to the character under study, rather than reading the whole text.

For the third case, *Karla Smith Integrates Literacy and Social Studies*, a few significant and relevant features Ms. Young identified were that it was effective for the case teacher to connect reading and writing with her content areas, and suggested shortening the lesson (i.e., had too many teaching points) and should have helped students engage with the text sooner. And for Ms. Young's evaluation of the fourth case, *Christina Williams: Teaching Narrative Structures*, one significant and relevant feature Ms. Young identified

was that it was effective that students had copies of their own graphic organizer to keep them on track.

Differences in discussion of significant and relevant features. There were differences in the percentages of significant and relevant features Ms. Young discussed about her own instruction when looking across the three interviews. Before evaluating the CSRL cases, 50% of Ms. Young's features were considered significant and relevant, however, after evaluating the cases, Ms. Young discussed significant and relevant features over 76% of the time. This change in percentage of significant and relevant features suggests that evaluating video-based cases similar to CSRL may influence teachers' analytic expertise.

Finally, Ms. Young was more likely to discuss significant and relevant features while evaluating her own instruction than while evaluating others' instruction. While discussing her own instruction, Ms. Young's focus on SEP remained constant over the course of the study, and her attention to LPD and Instruction slightly increased. It is possible that evaluating the CSRL cases supported Ms. Young in attending to other dimensions of her own instruction concerning her instructional methods and the purpose and design of her lessons. While evaluating others' instruction, Ms. Young was more likely to align with the Reading Specialists while discussing effective features (55% aligned), than while discussing suggestions (11%). The tendency for Ms. Young to align less with the Reading Specialists around suggestions is consistent with her expressed weakness in knowing how to improve instruction.

Characterization 2: The number of features Ms. Young discussed fluctuated while evaluating her own instruction. Another pattern evident in *what* Ms. Young

discussed about instruction and *how* she discussed her evaluations of instruction was the number of features of instruction identified. I examined the number of features participants identified at each time point and whether participants increased or decreased in the number of features of their own and others' instruction they discussed over the course of the study.

The number of features discussed of Ms. Young's own instruction. Ms. Young identified almost twice as many features during the re-evaluation interview (17 features) than during her Lesson 1 evaluation interview (10 features). This increase in features, from Lesson 1 to the re-evaluation may indicate that Ms. Young's experience evaluating the cases supported her in being able to identify aspects of her instruction that she had not had the lenses to "see" the first time she viewed Lesson 1. However, it is also likely that the experience of having an additional opportunity to watch and evaluate her lesson enabled Ms. Young to identify more features of her instruction.

At the end of the study, the number of features Ms. Young identified significantly decreased from the re-evaluation interview (17 features) to the Lesson 2 evaluation interview (3 features). During the Lesson 2 evaluation interview, Ms. Young explained that when she was viewing Lesson 2 and determining the aspects of her instruction in need of improvement, she realized she did not have a form of assessment to document students' mastery of the lesson objective(s). After identifying this feature she did not write down any other aspects of her instruction (for needs improvement) because nothing else seemed as critical to student learning. This overall decrease in features and the accompanying explanation suggest that Ms. Young may have become more selective in determining what

features of her instruction she considered important to student learning. Table 4.7 shows the number of features Ms. Young identified across these interviews.

Table 4.7 Number of features (own instruction)

Features Discussed	Lesson 1	Re-eval	Lesson 2
Effective features	7	7	2
Needs	3	10	1
Total features	10	17	3

The number of features discussed while evaluating others' instruction. Further, Ms. Young's features, while evaluating the CSRL cases, decreased by 33% from the first case to the fourth case (from 6 features to 4 features, respectively). Table 4.8 displays the numbers of features across the four CSRL cases.

Table 4.8 Number of CSRL case features discussed

Features Discussed	Case 1	Case 2	Case 3	Case 4
Effective	4	2	3	2
Needs	2	4	3	2
Total	6	6	6	4

Differences in the number of features discussed over course of study. Overall, the number of features for both Ms. Young's own instruction, as well as others' instruction, decreased over the course of the study. This decrease in features suggests that Ms. Young became more selective in the features she found to be critical for student learning. An alternative influence includes an end-of-study fatigue, although this is not likely given that the quality and thoroughness of her evaluations of instruction (hers and others') did not decrease.

Characterization 3: Ms. Young provided evidence for her claims of effectiveness while discussing her own instruction. The final pattern evident in *what* Ms. Young discussed about instruction and *how* she discussed her evaluations of

instruction was the extent to which she provided evidence for claims of effectiveness while discussing her own and others' instruction. When participants provided reasons for why the features of instruction they discussed were important for student learning, participants either used principles of teaching and learning or reasons specific to their own students. Reasons were considered principles if participants presented their claims of effectiveness in generalizable terms, rather than stating an explanation only applicable to one specific student or group of students.

Providing evidence for claims of effectiveness of Ms. Young's own instruction. When evaluating her own instruction, Ms. Young started the study providing reasons for why the features of instruction she discussed as either effective or in need of improvement were important for student learning. The reasons she provided at the beginning of the study were primarily specific to her students, rather than using principles of teaching and learning, however she used increasingly more principles of teaching and learning by the end of the study. Table 4.9 displays Ms. Young's ratio of reasons given (per feature discussed) and table 4.10 presents the types of reasons provided over the course of the study.

Table 4.9 Ratio of reasons per feature

Features Discussed	Lesson 1	Re-eval	Lesson 2
Effective	5:7	10:7	2:2
Needs	4:3	8:10	1:1
Total	9:10 (90%)	18:17 (100%)	3:3 (100%)

Table 4.10 Types of reasons

Features Discussed	Lesson 1	Re-eval	Lesson 2
Effective	5 Specific	6 Specific; 4 principles (40%)	2 principles
Needs	3 Specific; 1 principle (25%)	7 Specific; 1 principle (13%)	1 Specific
Total	8 Specific; 1	13 Specific; 5	1 Specific; 2

	principle (10%)	principles (29%)	principles (67%)

*percentages denote use of principles

During the Lesson 1 evaluation interview, Ms. Young provided reasons for nearly all of her features (90%), and most of these reasons were specific to her students (90%). An example of when Ms. Young backed up her claims of effectiveness with a principle of teaching and learning was when she explained that, although she thought her lesson was too long in length, she was not sure what she could have done about it *because* she thought that the amount of time she had her students working in the various parts of the lesson was developmentally appropriate. An example of a reason specific to her students given during the Lesson 1 evaluation interview was when Ms. Young described preparing a student before the lesson to share with the whole class a prediction he had made the day before, she said this feature was effective for student learning *because* "he kinda felt invested in the lesson and he felt like he was contributing something important [to the whole group discussion]" (Ms. Young, Lesson 1 interview).

While discussing her re-evaluation of Lesson 1, Ms. Young provided reasons for all of her features. When discussing why the features of instruction she identified were important for student learning, Ms. Young approached her reasoning primarily using reasons specific to her students (71%), and principles of teaching and learning far less often (29% of the time). While discussing her own instruction, Ms. Young described putting students who have a difficult time paying attention closer to her while reading the text and filling out the chart as a whole group. To back up this claim of effectiveness Ms. Young provided the following principle of teaching and learning. She explained that this technique of strategically positioning students closer to her can be effective *because* students are

close enough that teachers can check in with these students frequently, tap them discretely to regain their attention if needed, and call on them frequently (which she added is helpful for students who are reluctant to share during whole group lessons). An example of a reason specific to her own students that Ms. Young provided during the re-evaluation interview was when she was discussing how she read the text slowly and with a lot of expression. She said this was effective for her students' learning *because* her students seemed more interested in the story and appeared more focused, compared to other times she read to them with less expression.

Finally, while discussing her evaluation of Lesson 2, Ms. Young provided reasons (for why the features of instruction she discussed were important for student learning) for each of the features of instruction she discussed. Of these reasons, most were principles of teaching and learning (67%) and far fewer were specific to her students (33%). For example, while discussing her instruction in Lesson 2, Ms. Young explained that her students' level of engagement was an effective aspect of her lesson. To back up this claim, she discussed the following principle, "you know they're [ELL students] not gonna be able to stretch past you know where they currently are if they're not you know interested in trying something new" (Ms. Young, Lesson 2 interview). While discussing Lesson 2, Ms. Young provided the following reason specific to her students while explaining that her lesson could have been improved upon by having some form of assessment or record keeping system to keep track of what standards her students have been working on and which students are mastering them. She said this would be helpful so that she can be sure that her lessons are appropriate and based on what her students need next.

Providing evidence for claims of effectiveness while discussing others' instruction. When Ms. Young evaluated the CSRL case, she explained why she thought the features she identified were either effective or needed improvement for at least half of her features. Table 4.11 displays how often over the four cases Ms. Young supported her claims of effectiveness with evidence. As the table indicates, Ms. Young always provided evidence for her claims while discussing effective features, but far less frequently supported claims of effectiveness while discussing features in need of improvement. It is possible this tendency may be connected to her expressed struggle to provide suggestions for how to improve a given lesson.

Table 4.11 Providing evidence (others' instruction)

Features Discussed	Case 1	Case 2	Case 3	Case 4
Effective	4/4	2/2	3/3	2/2
Suggestions	0/2	1/4	0/3	2/2
Total	4/6	3/6	3/6	4/4

Differences in evidence given to support claims of effectiveness. Ms. Young began the study providing a high percentage of reasons for why her features were important for student learning, and ended the study providing reasons for every feature discussed. It should be noted that I asked Ms. Young to provide a reason for why a feature was important for student learning once during the Lesson 1 evaluation interview and once again at the re-evaluation of Lesson 1 interview. This prompting may have contributed to her consistent use of reasons throughout the study. However, this prompting to provide reasons does not account for her increased use of principles of teaching and learning.

Conclusion: Ms. Young's Analytic Expertise

In this section, I directly address how patterns in Ms. Young's evaluations of her own and others' instruction work to answer the guiding research questions. Patterns in (a) significant and relevant features of instruction, (b) the number of features of instruction discussed at various times in the study, and (c) how Ms. Young provided evidence for her claims of effectiveness. I consider what these patterns reveal about: (a) how Ms. Young evaluates others' instruction; (b) how she evaluates her own instruction, and what these patterns reveal about Ms. Young's analytic expertise.

How did Ms. Young evaluate others' instruction and what does this reveal about her analytic expertise? While evaluating others' instruction, Ms. Young's disposition to lesson analysis was to view it as an opportunity to learn from instruction. This perspective towards lesson analysis was evident in her repeatedly connecting the think-aloud lesson to her own instruction and making notes of ideas to try in her own classroom. Additionally, although this is not the intention of the *Literacy Specialists' Comments*, Ms. Young reported utilizing the *Literacy Specialists' Comments* at the end of each lesson to gauge whether her own evaluations were "expert." Ms. Young reported that as she got more experience evaluating the CSRL cases, she found her evaluations became more like the Literacy Specialists' evaluations, which she found encouraging and a sign of her own learning.

Further, Ms. Young was careful and thorough in her use of available features of the CSRL cases during the think-aloud lesson. For example, she read all of the available information presented in the case and carefully considered this contextual information as she assessed the effectiveness of the instruction. Further, Ms. Young took her time with each of the features, rarely skimmed the text, and never skipped sections. However, of the

four participants, Ms. Young took the most time to complete her think-aloud lesson, and her evaluations were the least aligned with the Reading Specialists' evaluations. This finding is consistent with other studies of this nature, in which novice teachers take more time and are less accurate while evaluating instruction (compared to expert teachers) (Krull et al., 2007; Sato et al., 1999).

Ms. Young also reported struggling with knowing how to improve a given lesson, which is also a tendency of more novice teachers (Sato et al., 1993). Moreover, Ms. Young was more likely to align with the Reading Specialists while discussing effective features (55% aligned) than while discussing suggestions (11%), which is consistent with her acknowledged difficulty in providing suggestions for how to improve a lesson.

How did Ms. Young evaluate her own instruction and what does this reveal about her analytic expertise? While evaluating her own instruction, Ms. Young began the study discussing significant and relevant features 50% of time. After evaluating the CSRL cases, she was more likely to identify significant and relevant features (76% of the time). The features of her own instruction that she examined that aligned with the TQs were typically focused on issues pertaining to SEP, however as the study went on, she considered aspects of her instruction related to LDP and Instruction as well. Further, the reasons she provided to back her claims of effectiveness at the beginning of the study were primarily reasons specific to her own students, rather than using principles of teaching and learning. With time, she increasingly included more principles of teaching and learning. Although no causal claims can be made, differences in what features of her own instruction Ms. Young discussed and how she discussed her instruction appeared to shift in meaningful ways over the course of the study, suggesting development of analytic expertise.

Ms. Thompson

Teacher Background

At the beginning of the study, Ms. Thompson had taught Kindergarten for seven years in a Midwest rural school district. Ms. Thompson began the study in the spring of 2013 and finished the study in the fall of 2013; therefore Lesson 1 involved her students from the 2012/2013 academic school year, and Lesson 2 was taught to a new group of students from the 2013/2014 school year. For both Lesson 1 and Lesson 2, Ms. Thompson was in the same elementary school and grade level.

Before the study began, Ms. Thompson had been serving as a "lab classroom teacher" in her school district for two years. A lab classroom teacher in Ms. Thompson's school district is a teacher who is showcased for other teachers in the same (or adjacent) grades to study and learn from his or her instruction. As a lab classroom teacher, other kindergarten teachers in the district came to Ms. Thompson's classroom during the school day to observe her teach a lesson and then to discuss her instruction as a group. Before teaching the lesson, Ms. Thompson explained to the visiting teachers what she would teach and why. In addition to these live observations, Ms. Thompson's school district videotaped her teaching and used the videos during professional development sessions for other early elementary teachers in the district to view and discuss her instruction. Further, Ms. Thompson had observed a teacher in another school district a few times and also observed a teacher in her building. She also attended a reading workshop training that used videos of teachers—although the videos were used as exemplars of teaching, rather than for evaluation and discussion.

Curriculum and classroom context

Ms. Thompson's school district followed a curriculum guide that she and other teachers in the district mapped out the year before the study began. The guide provided a plan for what to teach and when over the course of the school year. Ms. Thompson used the guide to plan units of study and general topics she needed to cover in each unit, rather than for day-to-day planning. Ms. Thompson planned daily instruction based on what she assessed students needed to work on next.

Ms. Thompson's primary goal of her literacy instruction was to help students love literacy. Ms. Thompson acknowledged that teaching literacy entails other goals as well, but what was most important to her was that her kindergarten students were excited when reading and writing workshop started. She wanted her students to believe they are readers and writers, and never wanted to hear students say, "I can't read" or "I can't write." She wanted students to know they are capable of reading and writing and should just do their best. Mostly, Ms. Thompson wanted students to think reading and writing are fun and interesting and to look forward to reading and writing every day.

Description of Lesson 1 and Lesson 2

In this section, I describe Lesson 1 and Lesson 2, including Ms. Thompson's (a) plan for the lesson, (b) enactment of the lesson, and (c) reflection of how she thought the lesson went. I include a thorough description of Lesson 1 and Lesson 2 so as to contextualize Ms. Thompson's evaluations of her own instruction presented later in this chapter.

Description of Lesson 1: *An Introduction to Bold Words and Glossaries*. When Lesson 1 was taught, Ms. Thompson's class was in the middle of a reading workshop unit on nonfiction text. Her students had already learned about different types of nonfiction texts, such as "how to books" (i.e., text that teach the reader how to do something, like bake

a cake), "all about books" (i.e., expository text about a particular topic), and biographies. The class had also learned about some nonfiction text features (i.e., table of contents, captions, and diagrams).

Plan for Lesson 1. Ms. Thompson's plan for Lesson 1 was to introduce two features of informational text, bold words and glossaries, and how they work together. The lesson objectives were (a) for students to know that bold words are something they can find in informational text; (b) bold words can help them learn new vocabulary words; (c) if students do not know what a bold word means, they can find it in the glossary. Ms. Thompson planned this lesson loosely from the district's curriculum guide, but primarily from what she noticed students needing instructionally. After this lesson, Ms. Thompson planned to introduce more informational text features, expose students to the wide range of topics of informational texts available, and end the unit with students identifying differences between non-fiction and fiction texts.

Enactment of Lesson1. To begin the lesson, Ms. Thompson reminded her students of all of the features in informational books they had previously learned and introduced the two new features that can work together, bold words and glossaries. She showed students some examples on the SMART Board of what bold words look like in text. She un-bolded and then re-bolded a word on the board to contrast the difference between bold words and un-bolded words. She explained that sometimes in informational texts there are bold words and they appear darker than other words to stand out on a page.

After presenting examples of bold words on the SMART Board, Ms. Thompson showed students examples of bold words in informational books. She explained that authors of informational books often introduce new vocabulary words by making them

bold so the reader knows the word is important. She further explained that the author often includes a glossary in the back of the book so that the reader can find out what the new word means. Ms. Thompson called a couple of students up to the front to find bold words in an informational text and then locate these words in the glossary.

Ms. Thompson put students in small groups to search through books for bold words in the text and then look these words up in glossaries. As students worked in groups, Ms. Thompson monitored students and assisted as needed. After a few minutes, Ms. Thompson shared with the class how one group found a book in which the author made new and important words different colors instead of bolding them. Before dismissing students from the rug, Ms. Thompson reminded students to look for bold words and find out what they mean in the glossary during independent reading time.

While students worked independently around the room, Ms. Thompson conferred with several students about their work as readers. A few students she met with confused headings with bold vocabulary words in the text. Ms. Thompson explained that even though headings look similar to bold vocabulary words, headings serve a different purpose. After these conferences, Ms. Thompson announced it was time to transition to reading their "just right" books (i.e., leveled books Ms. Thompson provided students at their independent reading level). Ms. Thompson conferred with a couple more students while reading their just right books; she pointed out when they used a reading strategy and provided instruction as needed. Afterwards, Ms. Thompson announced it was time to put their books away and meet her on the rug for share time.

During the share portion of the lesson, Ms. Thompson showcased a couple of examples of headings and bold words on the SMART Board that students had shown Ms.

Thompson during conferences. Ms. Thompson clarified that headings are not bold because they are in the glossary, but because headings are important and authors want readers to pay attention to them. Table 4.12 shows the amount of time for each part of Lesson 1.

Table 4.12 Lesson 1 time breakdown

Part of lesson	Mini lesson	Independent reading	Share time	Total lesson time
Amount of time (in minutes)	11	18	4	33

Reflection on Lesson1. Ms. Thompson thought the lesson went the way she planned for the most part, and students seemed to achieve the learning outcomes for the lesson. For example, Ms. Thompson knew her students had become aware of bold words and glossaries in informational text because she could hear them talking (at times shouting) about bold words and glossaries during the group work and independent reading time. Ms. Thompson speculated that most students were not able to read the glossary, although this was not an objective for the lesson. Further, she did not anticipate that students would confuse headings as bold vocabulary words, which she discovered while conferencing with a few students. Ms. Thompson was glad she was able to address this misconception during share time as she assumed other students were also confused about headings. Ms. Thompson planned to follow up on this lesson with more explicit instruction around what headings are so students can better differentiate between headings and bold vocabulary words.

Description of Lesson 2: *Reading Strategy: Getting Your Mouth Ready.* Ms. Thompson and her students were working through the reading workshop unit, *Readers Use Strategies to Figure out Unknown Words,* when Lesson 2 was taught. Prior to Lesson 2,

students had learned to look at illustrations to help them figure out unknown words, asking, “What makes sense [in the context of the sentence] based on the pictures?”

Plan for Lesson 2. The plan for Lesson 2 was to encourage students to attend to the first letter of an unknown word, in addition to the illustrations. To teach this strategy, Ms. Thompson planned to cover one word on each page of a simple text (Level A text), pretend to not know the covered word, and then reveal the first letter to figure out the word. After this lesson, students would learn to read all the way through a word and look for chunks (e.g., “an” in “can”, “pan”, “fan”) they know to work on word decoding skills.

Enactment of Lesson 2. To begin the lesson, Ms. Thompson reviewed strategies the class previously learned (e.g., using pictures to think what would make sense). She explained, “Today we are going to learn getting your mouth ready. That means looking at the first letter and using what that letter says to help you.” Ms. Thompson modeled the strategy for her students using the book she prepared ahead of time. For example, one page was about a lake and the illustration was a small body of water. She read the first part of the sentence and then predicted what the covered word might be (e.g. pond, river, mud). She then moved the paper covering the word so that the first letter was visible. She explained, “I’m going to get my mouth ready, I see the letter “L.” Oh, the word starts with the “llll” sound, so I know this says *lake*.” She then removed the paper completely to check the whole word and then kept reading. She used this strategy on three other pages in the book that she had prepared ahead of time with a covered book. On each page she involved students by asking questions like, “What letter does this word start with?” or “What sound does this letter make?”

Before sending students off to read independently with their just right books, Ms. Thompson reminded them, "If you come to a word you don't know, look at the first letter and let that help you." While students read independently around the room, Ms. Thompson conferred with students about their reading. During conferences, students read out loud, and Ms. Thompson prompted them to use reading strategies when necessary. If students used the approach of getting their mouth ready during the conference, Ms. Thompson named what they were doing to reinforce students' use of the strategy. During independent reading, Ms. Thompson stopped the class and showcased how one student used the strategy and reminded the rest of the class to keep looking at the first letter of a word. After meeting with a couple more students, Ms. Thompson asked everyone to pack up their books and meet her back on the rug for share time.

During the share portion of the lesson, two students Ms. Thompson conferred with brought their book bags to the rug for share time. She asked both students to bring their books up to the front, one at a time, and helped them share with the rest of the class how they used the strategy. Table 4.13 shows the amount of time for each part of Lesson 2.

Table 4.13 Lesson 2 time breakdown

Part of lesson	Mini lesson	Independent reading	Share time	Total lesson time
Amount of time (in minutes)	6	12	3	21

Reflection on Lesson 2. Ms. Thompson was pleased that most of her students were able to use the first letter to help them figure out the covered word during the mini lesson. However, Ms. Thompson was not sure whether all students met the lesson objective during independent reading time, as there is not enough time to meet with each student

individually. The students she did meet with either used the strategy independently or with her support. To follow up on Lesson 2, Ms. Thompson planned to allocate time for students to work more on this strategy with different text (e.g., poems, leveled books from the library), because attending to print is an important milestone her kindergartners need to achieve.

Description of Ms. Thompson's evaluations of CSRL cases

In this section, I describe Ms. Thompson's evaluations of other teachers' instruction and report (a) how Ms. Thompson interacted with the think-aloud lesson, (b) what Ms. Thompson valued about the CSRL cases in general. Ms. Thompson evaluated, *Karla Smith Integrates Literacy and Social Studies*, for the think-aloud lesson.

How Ms. Thompson interacted with the think-aloud lesson. In general, Ms. Thompson worked through the think-aloud lesson in the order the features are presented within CSRL. Table 4.14 shows what features Ms. Thompson accessed, how much time she spent with each feature, and the order in which she accessed the features. When accessing the features, Ms. Thompson primarily read the text, although she skimmed sentences (i.e., only read part of the sentence) when she seemed to understand the gist of a particular sentence or paragraph. She almost always skipped over the headings in the text. While reading the Teacher's Reflection, Ms. Thompson stopped reading and went on to the next feature when she realized the case teacher was reflecting on a portion of the lesson not shown in the video.

Table 4.14 Usage log

Feature of CSRL	Over-view	Con-text	About	Mater-ials	TQ	Video	TQs	Teach Rflct	Lit Spec	Total time
Accessed	No	Yes	yes	yes	yes	yes	yes	yes	yes	
Time (in seconds	:03	2:12	7:25	1:13	:24	20:02	8:02	1:02	1:33	42:54

While reading the features and viewing the lesson, Ms. Thompson periodically took notes on aspects of the lesson that stood out to her. Her notes typically pertained to when the case teacher explained the purpose of the lesson, and when Ms. Thompson praised or critiqued the plan or the enactment of the lesson. For example, Ms. Thompson noted concerns about how much time the teacher spent on the review portion of the lesson. Ms. Thompson later referenced these observations to help her answer the TQs.

Ms. Thompson reported that she typically interacted with the other lessons in a case the same as the lesson she completed as a think-aloud, however there were some differences. For example, she only accessed and read the *Context* page and *Materials* for the first lesson of each case because the information presented on these pages is the same for each lesson in a case. She accessed and read the *About* section every time because this section changes for each lesson in a case. And finally, Ms. Thompson found that as she gained more experience evaluating the lessons, she spent less and less time reading over and thinking about the TQs before answering them because, she reported, as she familiarized herself with them, she was able to quickly understand what the questions were asking.

What Ms. Thompson valued about the CSRL cases. While evaluating the CSRL cases, Ms. Thompson explained that although all the features were helpful for her, she really appreciated having access to the *Materials* and background information about the students (included in the *About the Lesson*). Ms. Thompson explained that the *Materials* were particularly helpful when part or all of a text (e.g., books, charts, posters) was not

read aloud in the video so that she could access the text in the *Materials* section and read anything that was not legible in the video. And Ms. Thompson said concerning the *About the Lesson*, "I also like to have background information on the students. Like if they are struggling or not—just to know if the strategies the teacher is using are appropriate or not."

Ms. Thompson appreciated when the case teacher was "to the point" and not "too wordy" when discussing her lesson in the *Context* and the *About the Lesson* section Ms. Thompson struggled to discern the main idea of Karla Smith's purpose for her lesson because the case teacher gave too much information while discussing her lesson. Ms. Thompson also appreciated having background information about the students as this information helped her to know whether the strategies the case teacher used were appropriate. Finally, Ms. Thompson found the *Literacy Specialists' Comments* interesting to read and appreciated their perspective as experts in the field. She typically used them to gauge whether she was "right" in her assessment of the lesson.

Characterizations of Ms. Thompson's Analytic Expertise

In this section, I address the overarching research question, *What does engaging with video-based cases reveal about participants' analytic expertise?*, by characterizing how Ms. Thompson evaluated early reading instruction relating to (a) significant and relevant features of instruction, (b) the numbers of features discussed, (c) evidence for claims of effectiveness.

Characterization 1: Ms. Thompson discussed significant and relevant features of her own and others' instruction. A pattern evident in how Ms. Thompson discussed her evaluations of instruction (her own and others') was in her identification of significant

and relevant features. Ms. Thompson discussed a high percentage of significant and relevant features of instruction while discussing her own practice as well as other teachers' practice (i.e., the CSRL cases).

Discussing significant and relevant features of Ms. Thompson's own instruction. When asked to discuss her evaluations of her own instruction (both effective features and features in need of improvement), all of the features of instruction Ms. Thompson's chose to discuss aligned with the TQs. Table 4.15 shows this alignment with the TQs across the three interviews. Ms. Thompson discussed features of her own instruction pertaining to each of the three TQ dimensions. Table 4.16 indicates how many significant and relevant features Ms. Thompson identified for each dimension over the course of the study.

Table 4.15 Significant and relevant features (own instruction)

Features discussed	Lesson 1	Re-eval	Lesson 2
Effective	3/3	5/5	3/3
Needs	2/2	3/3	1/1
Total	5/5	8/8	4/4

Table 4.16 Dimensions of the TQs discussed (own instruction)

TQ dimension	Lesson 1	Re-eval	Lesson 2
LPD	1	2	2
Instruct	2	5	1
SEP	2	1	2
Non TQ	0	0	0

At the outset of the study, Ms. Thompson discussed instruction fairly evenly across the three TQ dimensions. For example, a feature pertaining to LPD dimension was that she thought it was effective that she gave her students an opportunity to practice in small groups before working independently. An example of a feature concerning the Instruction dimension in need of improvement was that most students were confused about the

difference between bold words and headings. And finally, a feature relating to the SEP dimension Ms. Thompson discussed as being effective for student learning was her use of multi-media during the lesson, which Ms. Thompson thought helped her students to "zone in and get excited."

When Ms. Thompson discussed her re-evaluation of Lesson 1, she described features pertaining to each of the three dimensions again; however, for this interview she primarily considered features relating to methods of instruction. For example, an effective feature she discussed relating to the Instruction dimension was that she repeated the teaching point throughout the lesson, which she thought helped students achieve the learning objective for the lesson. One instance when Ms. Thompson discussed a feature concerning student engagement and participation issues was when she explained how having students in small groups to practice finding headings was effective for student learning, because this format seemed to help students focus in on the learning objective. And finally, a feature she identified relating to the LPD dimension that needed improvement was that she had two teaching points (i.e., bold words and glossaries), which she realized she should have taught over a couple of days, rather than in one lesson.

Finally, while discussing her evaluation of Lesson 2, Ms. Thompson discussed features pertaining to the LPD dimension and the SEP dimension. A feature of her instruction concerning the purpose and the design of the lesson was her use of examples utilizing the reading strategy during the mini-lesson (covering a word on the page and getting her mouth ready), which she discussed as effective for student learning because the examples were accessible to all students and provided opportunities for each student to apply the strategy with her support. Finally, a feature she discussed in need of

improvement that aligned with the SEP dimension was that her "neediest" students were not reading during independent work time.

Significant and relevant features discussed while evaluating others' instruction. When evaluating the CSRL cases, at least half of the features of instruction (effective features and suggestions for improvement) Ms. Thompson identified aligned with the Reading Specialists' evaluations. Table 4.17 displays how many of the features Ms. Thompson discussed aligned with the Reading Specialists' evaluations for each case. A significant and relevant feature Ms. Thompson discussed for the first case, *Leena Zeeban Builds ELL Students' Language and Literacy*, was the case teacher's use of vocabulary word cards. Ms. Thompson thought this feature was effective because the case teacher referenced the cards regularly to support student learning visually and auditorily. Ms. Thompson also discussed that the case teacher's use of the KWL chart in the lesson needed to be improved, as Ms. Thompson thought her use of the KWL chart led the discussion off topic and contributed to student confusion. While discussing the second case, *Kate Kaufmann: Lessons on Character Study*, an effective significant and relevant feature Ms. Thompson described was that students had opportunities to talk with a partner, which brought out everyone's ideas and the case teacher supported partnerships as needed.

Table 4.17 Significant and relevant features (others' instruction)

Features discussed	Case 1	Case 2	Case 3	Case 4
Effective	2/3	4/5	2/3	2/3
Needs	2/3	0/2	2/2	0/1
Total	4/6 or 67%	4/6 or 67%	4/5 or 80%	2/4 or 50%

For the third case, *Karla Smith Integrates Literacy and Social Studies*, a feature Ms. Thompson discussed that aligned with the Reading Specialists' evaluations was that the

case teacher had "interesting visual aids (e.g., posters, books, maps, arrowhead) that students were excited to see." A suggestion Ms. Thompson provided was that the case teacher needed to give students more time to practice the reading strategy. And finally, for Ms. Thompson's evaluation of the fourth case, *Christina Williams: Teaching Narrative Structures*, one significant and relevant feature Ms. Thompson identified was that students were engaged and were held responsible for participating.

Differences in discussion of significant and relevant features. Ms. Thompson consistently identified significant and relevant features of her own instruction, although dimensions of the TQs she discussed across the three interviews fluctuated. For example, while discussing Lesson 1 evaluation, Ms. Thompson considered all three dimensions fairly equally; however when she re-evaluated Lesson 1, she focused more on features of her instruction relating to methods of instruction (i.e., Instruction dimension). It is possible that having the opportunity to work with the CSRL cases increased Ms. Thompson's awareness of features of her own instruction that were either effective or in need of improvement, that she was not able to "see" prior to evaluating the cases. Also likely is that having the opportunity to re-watch and re-evaluate Lesson 1 enabled her to notice features in her instruction she did not originally discuss.

Another difference in Thompson's evaluations of instruction is evident between her evaluations of her own instruction and her evaluations of others' instruction. When discussing her own instruction, Ms. Thompson always discussed significant and relevant features; however when she discussed other teachers' instruction, while evaluating the CSRL cases, the features of instruction she identified did not always align with the Reading Specialists. In particular, the features of instruction Ms. Thompson discussed for the fourth

case, *Christina Williams: Teaching Narrative Structures*, were less aligned with the Reading Specialists. This difference may have been influenced by the quality of the instruction of a given case. For the most part, participants and the Reading Specialists evaluated the instruction presented in the fourth case as less effective (as indicated by the Likert scale ratings). It is conceivable that weaker instruction is more challenging to evaluate, perhaps because with weaker instruction, there would fewer effective features to identify and potentially countless features that could be improved.

Characterization 2: The number of features Ms. Thompson discussed fluctuated while discussing her own and others' instruction. Another pattern evident in how Ms. Thompson discussed her evaluations of instruction was the number of features of instruction she identified. I examined the number of features participants identified at each timepoint (e.g., Lesson 1, Lesson 2) and whether participants increased or decreased in the number of features of their own and others' instruction they discussed. The number of features Ms. Thompson discussed fluctuated over the course of the study while discussing her own instruction and others' instruction.

The number of features discussed of Ms. Thompson's own instruction. Ms. Thompson identified almost twice as many features during the re-evaluation interview (8 features) than during her Lesson 1 evaluation interview (5 features). Similarly to Ms. Young, this increase in features discussed, from Lesson 1 to the re-evaluation of Lesson 1, may indicate that Ms. Thompson's experience evaluating the CSRL cases helped her to identify aspects of her instruction that she had not consider the first time she evaluated Lesson 1. Although, the experience of having an additional opportunity to watch and evaluate her lesson also likely led to Ms. Young identifying more features of her instruction.

At the end of the study, the number of features Ms. Thompson discussed significantly decreased from the re-evaluation interview (8 features) to half as many features at the Lesson 2 interview (4 features). Table 4.18 shows the number of features examined across these interviews. This decrease in total features discussed may be an indicator that Ms. Thompson became more selective in what features of her own instruction she found to be critical for student learning. An alternative explanation for the overall decrease in features could be that Ms. Thompson experienced a drop off or fatigue effect because it was the end of the study and she was not putting in as much effort into the study as she did at the beginning.

Table 4.18 Number of features discussed (own instruction)

Features discussed	Lesson 1	Re-eval	Lesson 2
Effective	3	5	3
Needs	2	3	1
Total	5	8	4

The number of features discussed while evaluating others' instruction. The number of features Ms. Thompson identified when evaluating the CSRL cases was fairly even across the four cases, however she discussed fewer overall features while evaluating the fourth and final case. Table 4.19 displays the numbers of features examined across the CSRL cases. This overall decrease in features suggests that Ms. Thompson was more selective in identifying features of others' instruction important to student learning.

Table 4.19 Number of CSRL case features discussed

Features discussed	Case 1	Case 2	Case 3	Case 4
Effective	3	5	3	3
Needs	3	2	2	1
Total	6	7	5	4

Differences in the number of features discussed over course of study. When looking across the three interviews, the number of features Ms. Thompson identified first increases from the first evaluation of Lesson 1 interview to the re-evaluation of Lesson 1 interview, and then later significantly decreases from the re-evaluation interview to the Lesson 2 interview. Further, while evaluating the CSRL cases, Ms. Thompson's features decreased in the number by 33% from the first case to the fourth case. While discussing her own instruction and others' instruction, Ms. Thompson appeared to identify features of instruction important for student learning in a more selective manner.

Characterization 3: Ms. Thompson provided reasons specific to her students while discussing her own instruction. The third pattern evident in how Ms. Thompson discussed her evaluations of instruction was the extent to which she provided evidence for claims of effectiveness while discussing her own and others' instruction, using principles of teaching and learning and reasons specific to her own students. Ms. Young almost exclusively discusses her instruction using reasons specific to her own students.

Providing evidence for claims of effectiveness of Ms. Thompson's own instruction. When evaluating her own instruction, Ms. Thompson began the study providing reasons for her why the features of instruction she discussed (either effective or in need of improvement) were important for student learning. Further, her reasons at the beginning of the study were specific to her students, rather than principles of teaching and learning. Table 4.20 displays Ms. Thompson's ratio of reasons per features given, and Table 4.21 shows the types of reasons Ms. Thompson provided over the course of the study. During the Lesson 1 evaluation interview, Ms. Thompson provided reasons for well over half of the features she discussed (60%), and all of these reasons were specific to her

students. For example, a reason specific to her own students that Ms. Thompson provided was when she explained how using books with different versions of bold words (e.g., bolded in different colors) was an effective feature of her lesson because the different colors made the lesson more interesting for her students.

Table 4.20 Ratio of reasons given per feature

Features discussed	Lesson 1	Re-eval	Lesson 2
Effective	2/3	5/5	3/3
Needs	1/2	3/3	0/1
Total	3/5 60%	8/8 100%	3/4 75%

Table 4.21 Types of reasons given

Features discussed	Lesson 1	Re-eval	Lesson 2
Effective	2 specific	5 specific	3 specific
Needs	1 specific	2 specific; 1 principle	
Total	100% specific	87% specific; 13% principles	100% specific

While discussing the re-evaluation of Lesson 1, Ms. Thompson provided reasons for why all of her features of instruction were important for student learning. Of these reasons given, one reason was a principle of teaching and learning (13%) and the other reasons were specific to her own students (87%). Ms. Thompson provided the principle of teaching and learning when she explained that the part of her lesson in which students came up to the front of the class to find a bolded word in the glossary took too long. She suggested that she should have just showed her student where the word was in the glossary (rather than waiting for them to find it) and moved on. She said this was a feature in need of improvement *because* she wants her instruction to be as succinct and clear as possible. Additionally, an example of a reason specific to her own students Ms. Thompson provided during the re-evaluation interview was when she described how effective it was that her

students went to independent reading time to work with informational text immediately after the mini-lesson. She explained this was effective *because* her students were able to link the mini-lesson directly to their independent work, such that they could apply what they had just learned.

And during the Lesson 2 evaluation interview, Ms. Thompson provided reasons for why her features of instruction were important for student learning most of the time (75%). Of these reasons, all were reasons specific to her students. For example, Ms. Thompson discussed that the lesson led into some "good" one-on-one conferences, meaning that students seemed ready for this type of work in reading (i.e., using the reading strategy). This was an effective feature of her instruction because then her students were able to easily apply the reading strategy independently without much support from her.

Providing evidence for claims of effectiveness while discussing others' instruction. When Ms. Thompson evaluated the first three CSRL cases, she explained why she thought the features she identified (in writing) were either effective or needed improvement well over half of the time (ranging from 60% to 100% of the time). However, for the fourth case, Ms. Thompson explained why she thought the features were either effective or needed improvement far less often (25% of the time). Table 4.22 displays how often over the four CSRL cases Ms. Thompson supported her claims of effectiveness with evidence. As the table indicates, Ms. Thompson was equally as likely to provide a reason for her effective features as she was for her suggestions.

Table 4.22 Providing evidence (others' instruction)

Features discussed	Case 1	Case 2	Case 3	Case 4
Effective	2/3	5/5	2/3	0/3
Suggestions	2/3	2/2	1/2	1/1

Total	4/6 or 67%	7/7 or 100%	3/5 or 60%	1/4 or 25%

Differences in evidence given to support claims of effectiveness. Ms. Thompson began the study providing a high percentage of reasons for why her features were important for student learning, and ended the study providing a high percentage of reasons for why features she discussed were important for student learning. Ms. Thompson also provided reasons for why the features of instruction she discussed for the case teachers were either effective or needed improvement, however, less often than when discussing her own instruction, especially while discussing the fourth case.

Conclusion: Ms. Thompson's Analytic Expertise

In this section, I directly address how patterns in Ms. Thompson's evaluations of her own and others' instruction work to answer the guiding research questions. I consider what these patterns reveal about: (a) how Ms. Thompson evaluates others' instruction; (b) how she evaluates her own instruction, and what these patterns reveal about Ms. Young's analytic expertise.

How did Ms. Thompson evaluate others' instruction and what does this reveal about her analytic expertise? While evaluating others' instruction, Ms. Thompson was thorough in her use of the components available in the CSRL cases, meaning that she accessed all the features and referenced this information while evaluating the think-aloud lesson. Ms. Thompson would, however, make quick work of evaluating the case lessons by skimming frequently and often skipping the end of paragraphs or whole sections, particularly when she assessed the information as being irrelevant or presumably

nonessential for evaluation. For example, when reading the *Literacy Specialists' Comments*, after realizing the case teacher was discussing a part of the lesson that was in the video, Ms. Thompson stopped reading and moved on to the next feature. Although Ms. Thompson evaluated the lesson quickly, her evaluations nonetheless aligned with the Reading Specialists' evaluations at least 50% of the time. This ability to evaluate instruction quickly and accurately has been shown to be characteristic of more experienced teachers (Krull et al., 2007; Sato et al., 1993).

How did Ms. Thompson evaluate her own instruction and what does this reveal about her analytic expertise? While evaluating her own instruction, Ms. Thompson began the study discussing significant and relevant features 100% of the time across all three interviews. This alignment between the features of instruction she discussed and the TQs from the beginning of the study suggests that Ms. Thompson's analytic expertise was well developed before evaluating the CSRL cases. This was somewhat expected, as Ms. Thompson was a "lab teacher" for her school; therefore, presumably held in high esteem and viewed as possessing pedagogical content knowledge to share with other teachers in her grade level. Therefore, it was surprising, given Ms. Thompson's suspected well-developed analytic expertise, that she did not use principles of teaching and learning when discussing her reasons for why the features of instruction she identified were important for student learning.

Further, Ms. Thompson began the study discussing all three dimensions fairly evenly (i.e., relatively the same number of features per dimension). However, after evaluating the CSRL cases, Ms. Thompson considered features pertaining to the Instruction

dimension more often than the first time she evaluated Lesson 1 and also more often than the other two dimensions. This shift in what aspects of instruction Ms. Thompson discussed from Lesson 1 to the re-evaluation suggests that engaging with the CSRL cases may have influenced Ms. Thompson's evaluations.

Ms. Ward

Teacher Background

At the beginning of the study, Ms. Ward was teaching third grade in a Midwest suburban school district and was beginning her third year of teaching. Ms. Ward began the study fall 2013 and finished the study winter 2014; therefore, Lesson 1 and Lesson 2 were taught with the same students during the same academic school year. Prior to teaching third grade the year of the study, Ms. Ward was a kindergarten interventionist her first year of teaching and taught first grade the year prior to the study.

Prior to the study, Ms. Ward reported minimal experience viewing herself and others teach, either through live observation or video. She recalled recording a read aloud of herself and viewing it after finishing her undergraduate degree. A month before the study began, Ms. Ward attended two district-wide professional development sessions in which they viewed published video of guided reading lessons. However, these professional development sessions were intended for viewing exemplar instruction, not for evaluating instruction.

Curriculum and classroom context

Ms. Ward's school district curriculum guide incorporated the Common Core State Standards (National Governors Association Center for Best Practices & Council of Chief State School Officers, 2010) and mapped out English Language Arts instruction across the

year. Ms. Ward followed the guide for planning her whole group instruction. However, she planned and taught guided reading lessons based on what she noticed students needed to work on next. Her guided reading groups were arranged based on guiding reading level and were regularly adjusted to meet the needs of students.

While discussing her philosophy of literacy instruction, Ms. Ward described her role [in the classroom] as a facilitator of learning rather than the "giver of knowledge." She did not want students to think she knew everything and would impart her knowledge on them. She believed learning to read and learning to write are personal journeys, and she was there to coach her students along the way, giving them strategies to try. She wanted to encourage her students and point out reading strategies that supported them as readers and writers. She did not want students to "perform" for her—but rather she wanted them to take ownership of their own learning and think, "I am a reader, and when I am here [guided reading] I am getting better at reading."

Description of Lesson 1 and Lesson 2

In this section, I describe Lesson 1 and Lesson 2, and for each lesson, I include Ms. Ward's (a) plan for the lesson, (b) enactment of the lesson, and (c) reflection of how she thought the lesson went. A thorough description of Lesson 1 and Lesson 2 are provided to contextualize Ms. Ward's evaluation of her own instruction presented later in this chapter.

Description of Lesson 1: *Guided Reading Strategy Work: An Introduction to Paraphrasing.* The purpose of Lesson 1 was to work on a comprehension strategy that encouraged students to "stop, think, and paraphrase" what they had just read. Ms. Ward decided to teach this lesson because "depth of knowledge" and "strong comprehension" are strongly encouraged instructional goals in the Common Core. Before Lesson 1, Ms. Ward's

students worked on this strategy as a whole group, however never in guided reading groups.

Plan for Lesson 1. Ms. Ward planned to introduce the strategy while reading the book, *The First Thanksgiving*, with one of her guided reading groups. Before reading the text, Ms. Ward intended to preview some vocabulary words because she had a few ELL students in the group. Ms. Ward thought this guided reading group could use additional practice with this comprehension strategy because they read below grade level and often struggled with comprehension.

Enactment of Lesson 1. First, Ms. Ward introduced the book, *The First Thanksgiving,* and briefly explained the American holiday, Thanksgiving. She previewed a list of vocabulary words on a small whiteboard before reading the book. Her students read each word out loud, examined the meaning of the word as a group, and then viewed a picture representing the word. For example, for the word "harbor", Ms. Ward showed students a picture of a harbor, and described how boats and ships take shelter from rough waters in harbors. After previewing the vocabulary words, Ms. Ward said that readers sometimes need to stop reading and make sure they understand what they have read. She explained, "Every few pages I stop, think, and paraphrase, which means I tell what happened in my own words."

Students watched Ms. Ward model using the strategy and writing her thoughts down on paper. Ms. Ward passed out the books with sticky notes already on pages as reminders for students to stop, think, and paraphrase. While students silently read the assigned passage of the text, Ms. Ward listened to one student at a time quietly read aloud and paraphrase. Ms. Ward provided support with the reading and paraphrasing as needed.

While the group waited for a student to finish reading, Ms. Ward reviewed story elements flash cards (e.g., what is the plot, what is the setting, what is an action verb). Ms. Ward stopped the last student who was still reading and asked each student to share his or her paraphrase for the pages with sticky notes. Ms. Ward collected the books and sent students to read independently and work on paraphrasing in their own books. Table 4.23 presents the time spent at each stage of Lesson 1.

Table 4.23 Lesson 1 time breakdown

Part of lesson	Intro, modeling and directions	Independent reading time	Share time	Total lesson time
Amount of time (in minutes)	8	10	4	23

Reflection on Lesson 1. Ms. Ward thought that, although the book was challenging, her students comprehended the text well. She noticed some confusion about what paraphrase means and clarified a few times. To follow up on this lesson, Ms. Ward said she would check in with students in one-on-one conferences to see how they apply the strategy during independent reading. She also wanted to re-teach paraphrasing with this group the next time they met.

Description of Lesson 2: Guided Reading Strategy Work: Inferring the Meaning of Unknown Words. For Lesson 2, the objective was to infer the meaning of unknown vocabulary words using the context of a story. Previously, Ms. Ward's students used this inferring strategy with nonfiction text. Ms. Ward noticed her students needed to work on inferring unknown words while reading narrative text during guided reading as well.

Plan for the Lesson 2. For this lesson, Ms. Ward chose a book that was challenging enough that there were words students would have to infer but not too challenging that

they could not read the book independently. Ms. Ward chose a book that was at the middle of fourth grade reading level, *Mr. Popper's Penguin*. The group had read part of the text in the previous guided reading group; therefore she planned to start reading where they left off.

Enactment of Lesson 2. To begin the lesson, Ms. Ward referenced a chart with strategies students learned to use while reading nonfiction text. Ms. Ward explained that nonfiction text often provides definitions for new vocabulary words, however fictional stories, like *Mr. Popper's Penguin*, do not give definitions for unknown words. Therefore, students needed to use context clues in the story to make inferences about the meaning of unknown words.

First, Ms. Ward reviewed what they previously read and then showed her students the worksheet they would use to take notes while inferring the meaning of unknown words. The worksheet columns for taking notes read, (a) what the text says, (b) what I already know, and (c) my inference. Each student received a book and followed along as Ms. Ward read aloud. Ms. Ward stopped reading at the highlighted word, "ventilate", a word she had highlighted in the students' books as well. She explained, "To infer the meaning I am going to use what the text tells me, what I know in my head, and I am going to put these together to make an inference."

After some group discussion, Ms. Ward added to her chart that "ventilating holes" must mean, "letting air in." Next, Ms. Ward asked her students to turn to the next page with a highlighted word. She paired students up to read the page and fill out their own charts for the highlighted word. After a few minutes, Ms. Ward pulled students back together to work on inferring the meaning of the highlighted word as a group. Students continued reading

Mr. Popper's Penguin independently, noting any unknown words they encountered, so they could infer the meaning of the word as a group the next time they met. Table 4.24 displays the amount of time spent during each part of the Lesson 2

Table 4.24 Lesson 2 time breakdown

Part of lesson	Reading and discussing book	Independent writing time	Whole group share	Total lesson time
Amount of time (in minutes)	26	10	7	43

Reflection on Lesson 2. Ms. Ward thought the lesson went well. Students seemed to infer the meaning of unknown words with her help. She heard a lot of good discussion about the unknown words while students worked with partners; however, she thought they seemed unsure how to record their work on their worksheets. She found she needed to support them with this process more than she anticipated. She planned to continue working on inferring the meaning of unknown words with the same text, and also recording their thinking on their charts. After finishing reading the book, students will review all the words they recorded on the worksheet as words they learned from reading the book.

Description of Ms. Ward's evaluations of CSRL cases

In this section, I describe Ms. Ward's evaluations of other teachers' instruction and report how Ms. Ward interacted with the think-aloud lesson, and what she valued about the cases in general. The lesson Ms. Ward evaluated for the think-aloud was, *Christina Williams: Teaching Narrative Structures, Lesson 1: Setting the Stage for Reading a Fantasy*.

How Ms. Ward interacted with the CSRL Case. In general, Ms. Ward worked through the first lesson of the Christina Williams case in the order the features are

presented within CSRL. Although she accessed the TQs first so she would know what to look for while evaluating the lesson. Table 4.25 indicates what features Ms. Ward accessed, how much time she spent with each feature, and the order in which she accessed the features. When accessing the various features, Ms. Ward primarily read the text; however she often skimmed when she seemed to understand the gist of the section or paragraph and then moved on to either the next sentence or the next paragraph. She rarely read headings and guiding interview questions in the text. Ms. Ward completed her think-aloud lesson using the PDF file format, with the case features organized and available in folders. While reading the *Context*, she accessed and read only one of two pages in the PDF format. She more than likely did not read the second page of the *Context*, as she did not know it was there, because to access the page she needed to scroll down.

Table 4.25 Features of CSRL usage log

Feature of CSRL	TQs	Over-view	Con-text	Abo ut	Mater-ials	TQs	Video	Teach Rflct	Lit Spec	TQs	Total
Accessed	yes	yes	yes	yes	yes	yes	Yes	yes	yes	yes	
Time (in seconds and minutes)	:30	:45	:35	3:38	:36	5:32	17:38	1:56	3:56	:25	36:31

Ms. Ward spoke infrequently during the think-aloud and likely needed more reminders to continue verbalizing her thoughts. While viewing the lesson, she did not comment or write notes. She commented once while reading the *About the Lesson* (i.e., purpose of the lesson) to summarize her understanding of the lesson objective. She commented once while reading the *Teacher's Reflection* about something she noticed the case teacher needing to do (i.e., needed to be more direct with her questions so as to not confuse her students). Ms. Ward also commented twice while reading the *Literacy*

Specialists' Comments, one comment was agreeing with an observation the specialists described about the case teacher's instruction, and the other comment Ms. Ward mentioned was that she forgot to write down a suggestion (in response to the open-ended questions) she had thought of for the case teacher while viewing the lesson. She then went back to the TQs and added her suggestion to her written response.

When asked whether she thought she typically interacted with the other lessons in a given CSRL case the same as the lesson she completed as a think-aloud, she said it was very similar; however, there were some differences. Much like the other participants, Ms. Ward only accessed and read the *Context* for the first lesson, because the *Context* is the same for all the lessons in a case. Ms. Ward typically previewed the TQs before reading through the other features, like she did in the think-aloud so that she knew what to look for while evaluating the lesson. And finally she answered the TQs immediately after viewing the lesson.

What Ms. Ward valued about the CSRL case. Ms. Ward found the *Literacy Specialists' Comments* the most helpful because she appreciated being able to compare what she was thinking about a lesson with an expert opinion. For example, if the Literacy Specialists discussed something Ms. Ward had considered in her evaluation, Ms. Ward found the *Literacy Specialists' Comments* helped extend her own thinking. Ms. Ward also appreciated reading the Literacy Specialists' evaluations when they considered an aspect of the instruction she had not thought of; this perspective helped her to think about the lesson in a new way.

Overall, Ms. Ward reported knowing that the experience had benefited her teaching. At the end of the study she commented,

> I think you know any time I watch other people teach or you know just reflect on my own teaching, that's going to have an impact on not only just the teaching but my planning and reflecting after I read those files [features of CSRL, such as the *About the Lesson* and the *Literacy Specialists' Comments*] (Ms. Ward, Lesson 2 evaluation interview).

In this quote, Ms. Ward's sentiments are consistent with what teachers in similar studies reported concerning the benefits of lesson analysis (e.g. Rosaen et al., 2013; Zhang et al., 2011).

Characterizations of Ms. Ward's Analytic Expertise

In this section, I address the overarching research question, *What does engaging with video-based cases reveal about participants' analytic expertise*?, I characterize Ms. Ward's analytic expertise. I discuss three major patterns that characterize how Ms. Ward evaluated early reading instruction related to how (a) she discussed significant and relevant features of instruction, (b) the numbers of features she discussed fluctuated, and (c) she provided evidence for claims of effectiveness.

Characterization 1: Ms. Ward consistently discussed significant and relevant features of instruction. A pattern evident in how Ms. Ward discussed her evaluations of instruction was in her identification of significant and relevant features. Ms. Ward consistently discussed significant and relevant features of instruction while discussing her own and others' instruction.

Discussing significant and relevant features of Ms. Ward's own instruction. When asked to discuss her evaluations of her own instruction (both effective features and features in need of improvement), most of Ms. Ward's features aligned with the TQs. Table 4.26 presents how many of her features per interview were significant and relevant. Further, the features of instruction Ms. Ward discussed were evenly distributed across the

three TQ dimensions; in other words, Ms. Ward discussed a relatively equal number of features relating to all three dimensions for each interview. Table 4.27 indicates how many significant and relevant features Ms. Ward considered for each dimension.

Table 4.26 Significant and relevant features (own instruction)

Features discussed	Lesson 1	Re-eval	Lesson 2
Effective	4/6	3/3	3/3
Needs	4/4	3/3	3/3
Total	8/10 or 80%	6/6	6/6

Table 4.27 Dimensions of the TQs discussed

TQ dimension	Lesson 1	Re-eval	Lesson 2
LPD	2	2	2
Instruct	3	2	2
SEP	3	2	2
Non TQ	2	0	0

During the Lesson 1 evaluation interview, an effective feature Ms. Ward addressed pertaining to the LPD dimension was that the level of text she chose for her students was appropriate for them (i.e., students were able to read the text independently). A feature relating to the Instruction dimension that Ms. Ward thought could be improved upon was the pace of her lesson, as she ran out of time to listen to each student read. An effective feature concerning the SEP dimension was that the topic of the text was interesting for students. And finally, an example of when Ms. Ward's features did not align with the Thinking Question dimensions is when she discussed that it was effective for her to review reading strategies they had previously learned.

While discussing her re-evaluation of Lesson 1, a feature pertaining to the LPD dimension Ms. Ward thought was effective was that she taught one reading strategy so that students could focus and not be overwhelmed with numerous teaching points. A feature in need of improvement concerning the Instruction dimension Ms. Ward discussed was that

she needed to be more precise in her modeling of how to paraphrase. And finally, an effective feature relating to the SEP dimension was that her students were engaged and interested in the text and had the opportunity to spend a lot of time reading.

And while discussing her evaluation of Lesson 2, an effective feature concerning the LPD dimension Ms. Ward discussed was that the lesson connected to prior leaning they had done as a group. An effective feature pertaining to the Instruction dimension was that she explained the vocabulary words clearly and succinctly. And a feature in need of improvement aligning with the SEP dimension was that when students were working in pairs, only one student took notes; she thought she should have had both students taking notes so all students were engaged.

Discussing significant and relevant features while evaluating others' instruction. When evaluating the CSRL cases, at least half of the features of instruction (effective features and suggestions for improvement) Ms. Ward identified aligned with the Reading Specialists. Table 4.28 displays how many features aligned with the Reading Specialists' evaluations for each case. For example, for the first case, *Leena Zeeban Builds ELL Students' Language and Literacy*, the majority of Ms. Ward's written comments aligned with the Reading Specialists' evaluations (3 out of 5 features). An effective feature Ms. Ward noted was that the case teacher was able to speak in Arabic to her ELL students when clarification was needed during the lesson. A suggestion that aligned with the Reading Specialists' was that the case teacher had unclear objectives for the lesson. And for the second case, *Kate Kaufmann: Lessons on Character Study,* all of Ms. Ward's features were significant and relevant (4 features). The effective features Ms. Ward highlighted were that the case teacher had clear objectives, the lesson connected to prior learning, and the

students were engaged. A significant and relevant suggestion was that the text the case teacher used was too long and rather than reading it during the lesson, she should have read it at a separate time and then referred back to the sections she needed for the lesson.

Table 4.28 Significant and relevant features (others' instruction)

Features discussed	Case 1	Case 2	Case 3	Case 4
Effective	1/3	3/3	1/1	1/2
Needs	2/2	1/1	2/2	1/2
Total	3/5 or 60%	4/4 or 100%	3/3 or 100%	2/4 or 50%

For the third case, *Karla Smith Integrates Literacy and Social Studies*, all of Ms. Ward's features aligned with the Reading Specialists' evaluations (3 features). An effective feature Ms. Ward noted was that the case teacher "made connections across the curriculum (reading, writing, social studies)." In terms of suggestions, Ms. Ward thought the lesson was too long and needed to be shortened to keep students' attention, and thought the lesson could have been broken into several mini-lessons, as the case teacher tried to teach too many things in one lesson. And finally, for Ms. Ward's evaluation of the fourth case, *Christina Williams: Teaching Narrative Structures*, half of Ms. Ward's features were significant and relevant (2 out of 4). For example, an effective feature was that the case teacher taught students to look for context clues. A suggestion Ms. Ward discussed was that the case teacher needed to focus her lesson on fewer story elements, like characters and setting and not teach all of the story elements in one lesson.

Differences in discussion of significant and relevant features. Ms. Ward considered significant and relevant features of her own instruction pertaining to all three of the Thinking Question dimensions. She began the study discussing 2 features of her own instruction that did not align with the TQs and ended the study only discussing features of

her own instruction that aligned with the TQs. For the re-evaluation interview, Ms. Ward reported using the TQs to guide her evaluation. She had the list of questions out and read through them while evaluating her own instruction in an effort to consider aspects of her instruction she had not explored during her first evaluation of Lesson 1. I asked her to not directly use the TQs for her Lesson 2 evaluation, so that she could note the aspects of her own instruction that occurred to her naturally (i.e., without the TQs as a guide).

Further, Ms. Ward consistently identified significant and relevant features of her own instruction, but had less alignment with the Reading Specialists while evaluating others' instruction. This difference may have been impacted by the quality of the instruction of a given CSRL case. Similarly to Ms. Thompson, Ms. Ward aligned less with the specialists for the fourth case than the other three cases.

Characterization 2: The number of features Ms. Ward discussed slightly decreased while discussing her own instruction. Another pattern evident in how Ms. Ward discussed her evaluations of instruction was the number of features of instruction she identified when discussing her own and others' practice. The number of features of her own instruction Ms. Ward discussed tended to decrease across time points in the study.

The number of features Ms. Ward discussed (own instruction). The total number of features Mrs. Ward chose to discuss (of her own instruction) is nearly twice as many for her Lesson 1 evaluation interview compared to her re-evaluation of Lesson 1 interview and her Lesson 2 evaluation interview. Table 4.29 displays the number of effective and needs improvement features Ms. Ward discusses across the three interviews. This decrease in total features identified may be an indicator that Ms. Ward became more selective in what features of her own instruction she found to be salient (or critical) for student learning

after evaluating the CSRL cases. Because the decrease in features is apparent at the re-evaluation of Lesson 1 interview, Ms. Ward could be more selective in the features she discussed because of the nature of the study, that is, participants were asked to identify the most salient or critical features of instruction, implying a narrowing of focus.

Table 4.29 Number of features discussed (own instruction)

Features discussed	Lesson 1	Re-eval	Lesson 2
Effective	6	3	3
Needs	4	3	3
Total	10	6	6

The number of features discussed while evaluating others' instruction. Although the number of features Ms. Ward explores while evaluating the CSRL cases is fairly even across the four cases (ranging from 3 to 5 features), there is a slow decrease from case 1 to case 3 in the number of features she discussed. Table 4.30 displays the number of features of other teachers' instruction Ms. Ward identified. This slow decrease in features implies that Ms. Ward may have become more selective in her discussions in features important to student learning in her evaluation of others' instruction. The fluctuation in the number of features identified may also be influenced by the perceived quality of instruction of a given CSRL case. For example, Ms. Ward evaluated the second case as effective (by means of the TQ Likert scale ratings), and discussed more effective features than suggestions (3 effective features compared to 1 suggestion). It is possible, and reasonable to consider, that Ms. Ward discussed more effective features than suggestions because she perceived the instruction to be effective.

Table 4.30 Number of features discussed (others' instruction)

Features discussed	Case 1	Case 2	Case 3	Case 4
Effective	3	3	1	2

Needs	2	1	2	2
Total	5	4	3	4

Differences in the number of features discussed over course of study. While discussing her own instruction, Ms. Ward identified 40% fewer features from the beginning of the study to the end. And while discussing others' instruction, she identified 20% fewer features from the first case to the fourth. Ms. Ward appeared to be more selective in the features of instruction she considered critical for student learning at the end of the study (compared to the beginning) while discussing her own and others' instruction.

Characterization 3: Ms. Ward always provided evidence for her claims of effectiveness while discussing her own instruction. The final pattern evident in how Ms. Ward discussed her evaluations of instruction was the extent to which she provided evidence for claims of effectiveness while discussing her own and others' instruction using principles of teaching and learning and reasons specific to her students. Ms. Ward provided reasons for her claims of effectiveness more often while discussing her own instruction than while discussing others' instruction.

Providing evidence for claims of effectiveness of Ms. Ward's own instruction. When evaluating her own instruction, Ms. Ward almost always provided reasons for why her features of instruction were either effective or in need of improvement. Further, Ms. Ward's reasons at the beginning of the study were primarily specific to her students, rather than using principles of teaching and learning, but she used increasingly more principles of teaching and learning by the end of the study. Table 4.31 displays Ms. Ward's ratio of reasons given and table 4.32 shows the types of reasons over the course of the study.

Table 4.31 Ratio of reasons given per feature

Features discussed	Lesson 1	Re-eval	Lesson 2

Effective	6/6	3/3	3/3
Needs	3/4	3/3	3/3
Total	9/10 or 90%	6/6	6/6

Table 4.32 Types of reasons provided

Features discussed	Lesson 1	Re-eval	Lesson 2
Effective	5 specific; 3 principles	4 principles	3 principles
Needs	2 specific; 1 principle	2 specific; 1 principle	1 specific; 3 principles
Total	7 specific; 4 principles (36% principles)	2 specific; 5 principles (71% principles)	1 specific; 6 principles (86% principles)

During the Lesson 1 evaluation interview, Ms. Young primarily provided reasons specific to her students (63%), as opposed to principles or principles of teaching and learning (36%). For example, a reason specific to her own students Ms. Ward provided was when she explained that the pace of her lesson was not right, and this aspect of her instruction was ineffective because she did not have enough time to listen to each of her students read independently. A principle of teaching and learning she used was when she discussed that the text level was appropriate for her students and this was important for student learning because they were able to read the text independently, while she listened in, which she finds more engaging for students than "round robin" reading.

During the re-evaluation of Lesson 1 evaluation interview, the majority of reasons Ms. Ward used were principles of teaching and learning (71%), rather than reasons specific to her students (29%). She provided a principle of teaching and learning while discussing that her students were very engaged in the text. She said this was effective for student learning because students need to be reading during most of the guided reading time so that they "fit in the most learning possible." And a reason specific to her own students that

Ms. Ward provided was when she explained needing to model and explain paraphrasing more precisely for her students because then her students would be more sure of what they were supposed to be practicing during the guided practice.

And during the Lesson 2 evaluation interview, Ms. Ward used principles of teaching and learning for the majority of her reasons given (86%), as opposed to reasons specific to her students (14%). A principle of teaching and learning Ms. Ward gave was when she described how she clearly explained the vocabulary terms for her students. Teaching in a clear and concise manner is important for student learning because then students are "tuned in and listening because [they know] it's gonna be important." And an example of a reason specific to her students was when she explained that she should have had both students working in partnerships record on a chart, rather than one, because she thought that she lost engagement with the student who was not taking down notes.

Providing evidence for claims of effectiveness while discussing others' instruction. When Ms. Ward evaluated the CSRL case, she did not provide reasons for why her features of instruction (effective or suggestions) were important for student learning. Table 4.3 displays how often over the four cases Ms. Ward supported her claims of effectiveness with evidence. Unlike the evaluation interviews, there were no prompts or reminders for participants to explain why their features were important for student learning. Ms. Ward was very brief in her written responses for the CSRL cases. Her brief, bulleted responses may have been a result of her having printed off the response form, as opposed to responding to the cases electronically. When responding electronically, there are no visual parameters for how much space there is to write a response, however, for Ms.

Ward, because she printed the response form off, there was only a space large enough to write one or two sentences.

Table 4.33 Providing evidence (other's instruction)

Features discussed	Case 1	Case 2	Case 3	Cases 4
Effective	0/3	0/3	0/1	0/2
Needs	0/2	0/1	1/2	0/2
Total	0/5	0/4	1/3	0/4

Differences in evidence given to support claims of effectiveness. When discussing her own instruction, Ms. Ward was more likely to provide a reason for why her features were important for student learning and far less likely to provide a reason for why her features for the CSRL cases were important for student learning. Further, when discussing her own instruction, Ms. Ward began the study using reasons specific to her students, however, by the end of the study (the re-evaluation interview and Lesson 2 evaluation interview), Ms. Ward generally used principles of teaching and learning for her reasons as to why her instruction was either effective or in need of improvement.

Conclusion: Ms. Ward's Analytic Expertise

In this section, I directly address how patterns in Ms. Ward's evaluations of her own and others' instruction work to answer the guiding research questions. I consider what these patterns reveal about: (a) how Ms. Ward evaluates others' instruction; (b) how she evaluates her own instruction, and what these patterns reveal about Ms. Young's analytic expertise.

How did Ms. Ward evaluate others' instruction and what does this reveal about her analytic expertise? During the think-aloud, Ms. Ward tended to evaluate the

case lesson carefully, systematically, and accurately. She read through the TQs because she wanted to know what she should focus on before accessing the other features. While she evaluated the think-aloud lesson, her focus appeared to be on evaluating the lesson and did not comment about other connections she had, such as connections to her own teaching. Ms. Ward did discuss appreciating the *Literacy Specialists' Comments*, as they often extended her thoughts on a lesson and provided another perspective for thinking about the instruction. Of the four participants, Ms. Ward had the most alignment with the Reading Specialists' evaluations. This alignment with the Reading Specialists' suggests that Ms. Ward may have begun the study with already well-developed analytic expertise.

How does Ms. Ward evaluate her own instruction? While evaluating her own instruction, Ms. Ward began the study primarily discussing significant and relevant features (80%), and after evaluating the CSRL cases, all of Ms. Ward's features aligned with the TQs. Of these significant and relevant features, Ms. Ward considered features evenly across all three of the dimensions of the TQs. This alignment with the TQs before evaluating the CSRL cases provides additional evidence that Ms. Ward may have begun the study with well-developed analytic expertise. Moreover, when discussing her own instruction, Ms. Ward provided evidence for her claims of the effectiveness. This evidence began as reasons specific to her students, and by the end of the study were primarily principles or principles of teaching and learning. For these reasons, it is possible that the experience of evaluating the cases influenced Ms. Ward's analytic expertise.

Ms. Cooper

Teacher Background

At the beginning of the study, Ms. Cooper taught third grade in a Midwest rural school district, and was beginning her fourth year of teaching. Ms. Cooper began the study in the fall of 2013 and finished the study winter 2014; therefore, Lesson 1 and Lesson 2 were with the same group of students within the same academic school year. Prior to teaching third grade the year of the study, Ms. Cooper taught fourth grade for three years.

When asked about her experience with evaluating instruction, either live observation or with video, Ms. Cooper described a recent district-wide professional development using video. The professional development was a book study using Carl Anderson's practitioner's resource called, *How's It Going?: A Practical Guide to Conferring with Student Writers*. Ms. Cooper and colleagues viewed the videotaped conferences and examined instructional moves the teacher used and features of the conference that stood out to them. Also, the year before the study, Ms. Cooper was videotaped so that other teachers in the district could view and discuss her instruction as part of grade level professional development.

Curriculum and Classroom Context

Ms. Cooper's school district mandated curriculum guide incorporated the Common Core State Standards (National Governors Association Center for Best Practices & Council of Chief State School Officers, 2010) and mapped out English Language Arts instruction across the year. For daily lessons, Ms. Cooper adapted lessons from *Units of Study for Teaching Reading, Grades 3-5* (Calkins, Tolan, Ehrenworth, 2010). Ms. Cooper taught reading using a reading workshop model (i.e., a mini-lesson, independent reading time, and a share time at the end). During independent reading, Ms. Cooper either conferenced with students one-on-one, or she taught strategy groups. Strategy groups were typically 5 to 6

students who needed additional support in a similar area of reading instruction. For instance, if a handful of students were struggling with a strategy but the rest of the class was not struggling with it, Ms. Cooper pulled this group of students together and gave them additional instruction specific to their needs. At the time of Lesson 1, Ms. Cooper's class was working on studying characters in the unit, *Following Characters Into Meaning* (Calkins et al., 2010).

Ms. Cooper's main objectives as a reading teacher were to help students fall in love with books and look forward to reading. However, she found that students who have had negative or embarrassing experiences with reading were harder to convince than other students. By the time students reach third grade, a majority of them already know how to decode, therefore Ms. Cooper focused more on supporting students to think like readers than decoding and word work. Ms. Cooper saw herself as a coach and modeled for her students how to discuss and think about reading. She often said to her students, "You watch me first, and then you do it yourself."

Description of Lesson 1 and Lesson 2

In this section, I describe Lesson 1 and Lesson 2, and for each lesson, I include Ms. Cooper's (a) plan for the lesson, (b) enactment of the lesson, (c) reflection of how she thought the lesson went. A thorough description of Lesson 1 and Lesson 2 are provided to contextualize Ms. Cooper's evaluation of her own instruction presented later in this chapter.

Description of Lesson 1: *Letting the Text Revise Our Image of the Character.*

Prior to Lesson 1, Ms. Cooper taught her students how to grow principles about their characters (i.e., using information in the text to build more developed and accurate theories

about the characters). For Lesson 1, Ms. Cooper wanted students to hold the theories they were already forming about their characters loosely so that when students learned new information about their characters from further reading of their book, they could either add to their existing theory or change their theory completely if necessary.

Plan for Lesson 1. Ms. Cooper had taught this lesson twice while teaching fourth grade in previous years. This year to plan the lesson, she met with two third grade teachers who were teaching the lesson to their students as well. To plan for this lesson, Ms. Cooper also read the lesson, *Letting the Text revise Our Image of the Characters (Calkins et al.,* 2010). Ms. Cooper used most of the suggested lesson structure; however, she incorporated stories from her own life rather than the scripted anecdotes provided for illustrative purposes. Further, Ms. Cooper designed her strategy group lesson based on what she thought her particular group of students needed.

Enactment of Lesson 1. Ms. Cooper introduced the reading strategy to her students using a couple of analogies to help them understand what she meant by "revising theories." For example, she told her students that when she plays Sudoku, she writes in pencil because she knows she may need to go back and change some numbers after the pattern develops on the page. She explained that her students needed to think about their theories of their characters in the same way; they need to write them in pencil in their minds so that as they learn more information about their characters, students can go back and either revise or change their theory.

Ms. Cooper modeled the strategy by reading part of a text they had previously read together as a group. After reading a short part of the text, she explained the theory she formed about one of the characters already. She continued reading a few more paragraphs

until something she read about the character made her revise her theory. She had students turn to a partner and share what they noticed her doing. Before dismissing students for independent reading, she reminded students to revise their theories just like she did and then write on a sticky note how they revised a theory about a character.

While students read independently, Ms. Cooper met with a strategy group. Students brought their pencils, sticky notes, and the book they were currently reading. She explained it can be hard to remember to write down your thinking while reading and to help them remember to jot notes about their characters they can sticky note pages ahead of where they are reading as reminders. Then, as students come to a sticky note in their book, it can be a reminder to stop and jot down what they are thinking. Ms. Cooper modeled this strategy of flagging pages in her own text. Then students helped her write a note after reading the next page. After reiterating the reading strategy, students read and made notes independently while she listened in to their reading, assisting students as needed.

After the strategy group, Ms. Cooper conferenced with a couple of students one-on-one and recorded notes about the conference on her iPad. In the first conference, the student was not writing down his thinking while reading. To help him remember, Ms. Cooper showed the student how to flag pages ahead to remind himself to stop once in a while and jot his thinking down. After the conference, Ms. Cooper stopped her students from reading and reiterated the reading strategy they were all supposed to be practicing. During the second conference, Ms. Cooper helped a student who was struggling with comprehension to find a text that he could comprehend. She reminded the student to "find books that are really good *and* are at his reading level."

Ms. Cooper got her students' attention and asked students to collect their thoughts about what they would like to share from their sticky notes and then meet their partner in their assigned sharing spots. While students shared their theories, Ms. Cooper listened in on a pair of students. She stopped the class to showcase how she overheard one student in a pair listen while her partner shared and then asked her partner a question about what she shared. Ms. Cooper reminded the rest of the class to do the same (ask their partner questions) while sharing. To conclude the lesson, Ms. Cooper told her students they know how to revise theories about their characters "today and every day" as readers. Table 4.34 shows the time spent during each part of Lesson 1.

Table 4.34 Lesson 1 time breakdown

Part of lesson	Mini lesson	Independent reading	Share time	Total lesson time
Amount of time (in minutes)	11	33	5	49

Reflection on Lesson 1. Ms. Cooper thought her lesson went the way she planned for the most part. In particular, her strategy group seemed to benefit from learning about flagging the text to help them remember to jot their thinking down quickly while reading. She was impressed with their thinking about their text and realized they just needed help drawing out their thinking. Ms. Cooper planned to teach this lesson (i.e., flagging pages as a reminder to jot down thinking) with other students who need help remembering to write down their thinking while reading.

If Ms. Cooper taught this lesson again she would use a different text to model the strategy to the whole group during the mini-lesson because the text began with an analogy that seemed to confuse her students. In the future she would use a text that is "more

concrete and easy to understand." To follow up on this lesson, her students will learn how to bring a "narrative frame" to their theories by writing more about their theories.

Description of Lesson 2: *Seeing Texts Through the Prism of Theories.* Prior to Lesson 2, Ms. Cooper's class studied character relationships between main characters and secondary characters. The objectives for Lesson 2 were to: (a) continue working on characters and noticing patterns about characters in "series books" (i.e., books that are grouped together with certain characteristics in common; usually the same characters and setting, with a different story from book to book); (b) to encourage students to think about the author's intent; and (c) to consider why readers look for patterns in texts.

Plan for Lesson 2. To plan for this lesson, Ms. Cooper read the lesson, *Seeing Texts Through the Prism of Theories* (Calkins et al., 2010). This was Ms. Cooper's first time teaching the lesson so she decided to use the suggested text for modeling the strategy. Ms. Cooper had pre-taught this strategy to her strategy group the day before Lesson 2 so they would be familiar with the concept. For one-on-one conferences, Ms. Cooper planned to carry a mentor text with her to model for students how to enact the strategy during conferences if necessary.

Enactment of Lesson 2. To introduce the lesson, Ms. Cooper shared a story about her track coach in high school and how he would say the same thing over and over again because he thought it was important and wanted the team to remember it. She explained that authors do this too; they often include things in their stories over and over, because they want the reader to pick up on it. Authors want to teach lessons through their stories, and we, as readers, need to pay close attention to figure out those lessons.

She modeled how to pick up on these patterns by reading a short part of a book from the series, *Dinosaur Cove* (a series she had read the class before). After reading a short passage, Ms. Cooper discussed how the characters in the story are always jumping into an adventure, which is brave, but then problems always come up because they rushed into a situation without thinking it through. She suggested that perhaps the author is trying to teach the reader not to jump into a situation without thinking carefully about it first. She then passed out bookmarks for students to use while they read independently. The bookmarks posed two questions for students to think about "What lesson is the character learning?", and "What is the author trying to teach us?" Before sending students off to read independently, students paired up to share something in their current series they think the author is trying to teach the reader.

While students read independently, Ms. Cooper met with a strategy group to discuss the most important part of a story and what that reveals about author intent. First, Ms. Cooper read part of a text, *City Dog, Country Frog*, and then she identified what she thought was the most important part. And finally she showed her students what in the text made her think it was the most important part. Students tried the strategy by writing their thoughts on a sticky note and then sharing their thinking and evidence with Ms. Cooper, while the other students listened. Ms. Cooper supported students as needed. She told students to continue this work in their own books during independent reading time, and they will discuss their notes the next time they meet.

After the strategy small group lesson, Ms. Cooper conferenced with a few students. During conferences, Ms. Cooper modeled how to notice patterns about the characters and how to quickly jot down her thinking. For example, during a conference Ms. Cooper noticed

that the student was not writing down his thinking at all. During the conference she had him practice stopping his reading once in awhile to jot down his thinking. She helped him to see that when he takes the time to jot down his thinking it can lead to really "smart thinking" about his reading.

She asked students to meet their partner in their assigned spot to share their thinking about the two questions on their bookmarks. While students discussed, Ms. Cooper listened in on a discussion. After each student discussed their thinking for a few minutes, Ms. Cooper shared what she overheard someone discussing with their partner because she said it was really smart work. She concluded the lesson by complimenting the class on their hard work as readers. Table 4.35 displays the time spent at each part of Lesson 2.

Table 4.35 Lesson 2 time breakdown

Part of lesson	Mini lesson	Independent reading	Share time	Total lesson time
Amount of time (in minutes)	11	27	7	47

Reflection on Lesson 2. Ms. Cooper thought students were able to consider author intent fairly easily, however they seemed to struggle with backing up their thinking with evidence from the text. She planned to work more with using evidence from the text to back up their thinking.

Ms. Cooper wished she had asked students to discuss a different text other than their own books at the end of the mini-lesson. She wondered if students felt like they were done thinking about the questions on the bookmark in relation to their own books, because they had already thought about their books and the questions before reading

independently. Further, if she taught this lesson again, she would remind students to think about the bookmark questions with their own books during independent reading time.

Description of Ms. Cooper's evaluations of CSRL cases

In this section, I describe Ms. Cooper's evaluations of other teachers' instruction and report how Ms. Cooper interacted with the think-aloud lesson, and what she valued about the cases in general. The case Ms. Cooper evaluated for the think-aloud lesson was, *Karla Smith Integrates Literacy and Social Studies*.

How Ms. Cooper interacted with the think-aloud lesson. In general, Ms. Cooper worked through the think-aloud lesson in the order the features are presented within CSRL. Table 4.36 indicates what features Ms. Cooper accessed, how much time she spent with each feature, and the order in which she accessed the features. When accessing the various features, Ms. Cooper primarily read the text; however, she would skim (i.e., not read all the way through a sentence before moving on to the next sentence) at times. While reading and viewing the lesson, Ms. Cooper made conversational comments about the lesson (.e.g., "ok", 'um hmm", "yep"). She also commented on making connections to her own classroom. For example, when viewing the lesson she said, "I love that, I am going to use that in my own classroom." Four out of the 10 comments connecting to her own classroom can be attributed to her school district using the same curriculum for social studies that the teacher drew from in the lesson.

Table 4.36 Features of CSRL usage log

Features of CSRL	Over-view	Context	About	Mater-ials	Video	TQs	Teach Rflct	Lit Spec	Total time
Accessed	No	yes	yes	yes	yes	yes	yes	yes	
Time	N/A	2:59	6:30	:36	20:02	7:28	2:07	3:03	42:45

Like the other participants, Ms. Cooper only accessed and read the *Context* and *Materials* for the first lesson of a case, because these tend to be the same for all the lessons in a case. Ms. Cooper assessed and skimmed through the *About the Lesson* because this feature changed for each lesson.

What Ms. Cooper valued about the CSRL cases. Ms. Cooper found the videos very powerful to view and evaluate other peoples' teaching. She discovered the videos helped her to reflect on her own teaching. She said that viewing and evaluating other teachers' lessons helped her to reflect on good practices in her own classroom and practices she wants to improve. One of the cases using guided reading was particularly helpful as she struggled with running guided reading groups. Another case was helpful for thinking about how to use mentor texts. Further, Ms. Cooper looked forward to the *Teacher Reflection* and the *Literacy Specialists' Comments* because they were always interesting and she learned a lot from them.

Characterizations of Ms. Cooper's Analytic Expertise

In this section, I present three major patterns that characterize how Ms. Cooper evaluated early reading instruction relating to how (a) she discussed significant and relevant features of instruction, (b) the numbers of features she discussed, (c) she provided evidence for claims of effectiveness.

Characterization 1: Ms. Cooper discussed significant and relevant features of instruction while discussing her own instruction. A pattern evident in how Ms. Cooper discussed her evaluations of instruction was in her identification of significant and relevant features. Ms. Cooper was much more likely to identify significant and relevant features of

instruction while discussing her own instruction than she was discussing others' instruction.

Discussing significant and relevant features of Ms. Cooper's own instruction. When asked to discuss her evaluations of her own instruction (both effective features and features in need of improvement), most of Ms. Cooper's features of instruction aligned with the TQs. Table 4.37 presents how many of her features per interview were significant and relevant. During the Lesson 1 evaluation interview, Ms. Cooper primarily explored features of her instruction that pertained to the SEP dimension. For example, Ms. Cooper explained needing to follow up with students she conferenced with to see if they accomplished the learning goal(s) she and the student had discussed during the conference. Table 4.38 indicates how many significant and relevant features Ms. Cooper identified for each dimension.

Table 4.37 Significant and relevant features (own instruction)

Features discussed	Lesson 1	Re-eval	Lesson 2
Effective	6/7	3/3	4/4
Needs	4/5	4/4	3/3
Total	10/12 or 83%	100%	100%

Table 4.38 Dimensions of the TQs discussed

TQ dimension	Lesson 1	Re-eval	Lesson 2
LPD	2	3	3
Instruction	2	2	1
SEP	6	2	3
Non TQ	2	0	0

During the re-evaluation of Lesson 1 interview, Ms. Cooper considered features that were fairly evenly distributed across the three dimensions. For example, a feature pertaining to LPD she described was that her use of generalizable reading strategies gave students skills they can use as readers forever. A feature Ms. Cooper described pertaining

to the Instruction dimension was that she needed to have more resources for her students to help with the lesson (i.e., handouts, bookmarks with strategies). And an example of a feature concerning the SEP dimension was that Ms. Cooper needed to be more flexible in the answers she looked for when students responded to her questions, rather than looking for the "right" answer she had in her mind.

While discussing her evaluation of Lesson 2, Ms. Cooper primarily identified features of her instruction pertaining to the LPD dimension and the SEP dimension. A feature she highlighted relating to the purpose and design of the lesson was that she had a clear teaching point in her small group work. An example of a feature pertaining to student engagement was that she needed to use her share time at the end of the lesson more effectively. And the feature of her lesson she discussed concerning the Instruction dimension was that she needed to explicitly model, during the mini-lesson, exactly what she wanted students to do independently.

Significant and relevant features discussed while evaluating others' instruction. When evaluating the CSRL cases, the features of instruction (effective features and suggestions for improvement) Ms. Cooper identified only somewhat aligned (i.e., less than half of the features aligned) with the Reading Specialists. Table 4.39 displays how many features aligned with the Reading Specialists' evaluations for each CSRL case. Ms. Cooper did not complete the same case that the other participants and Reading Specialists' completed for her first case, namely *Leena Zeeban Builds ELL Students' Language and Literacy*, consequently Ms. Cooper's first case is not included in this section.

Table 4.39 Significant and relevant features discussed (others' instruction)

Features discussed	Case 1*	Case 2	Case 3	Case 4

Effective	N/A	2/2	1/5	2/3
Needs	N/A	1/5	1/2	1/6
Total	N/A	3/7 or 43%	2/7 or 29%	3/9 or 33%

*Ms. Cooper evaluated a different case than the other participants and the Reading Specialists; therefore her evaluation for case 1 is not included in this section

For the second case, *Kate Kaufmann: Lessons on Character Study*, a significant and relevant feature Ms. Cooper noted was that the use of an established mentor text was effective. She also suggested that since the text was a familiar book for students, the case teacher should have just reviewed the pages she needed to reference for the lesson, rather than re-reading the whole book.

For the third case, *Karla Smith Integrates Literacy and Social Studies*, Ms. Cooper explained that the materials (e.g., primary and secondary sources) the case teacher used were effective, although, Ms. Cooper thought the length of the lesson was something that needed to be improved upon because there was too much review of prior learning. And for Ms. Cooper's evaluation of the fourth case, *Christina Williams: Teaching Narrative Structures*, Ms. Cooper discussed that the vocabulary work was effective and suggested that students spend more time actually reading the book, rather than discussing the text for the entire lesson.

Differences in discussion of significant and relevant features. When discussing her own instruction, Ms. Cooper was slightly more likely to discuss features of her instruction that aligned with the TQs after evaluating the CSRL cases, than before evaluating the cases. Further, the majority of the instruction Ms. Cooper discussed before evaluating the cases pertained to the SEP dimension, however, after evaluating the cases, her features were much more evenly distributed across the three TQ dimensions. It is possible that evaluating the CSRL cases supported Ms. Cooper in identifying more aspects

of her instruction in Lesson 1 that concerned the Instruction and LPD dimensions. These changes in percentage of significant and relevant features discussed and dimensions of the TQs considered over the course of the study suggest that evaluating video-based cases may have influenced her analytic expertise.

Characterization 2: The number of features Ms. Cooper discussed fluctuated (own and others'). Another pattern evident in how Ms. Cooper discussed her evaluations of instruction was the number of features of instruction she identified. The number of features Ms. Cooper discussed fluctuated across time points in the study while discussing her own and others' instruction.

The number of features discussed of Ms. Cooper's own instruction. Ms. Cooper identified nearly half as many features during the re-evaluation interview and the Lesson 2 interview (7 features for both interviews) than during her Lesson 1 evaluation interview (12 features). Table 4.40 shows the number of effective features and features in need of improvement across these interviews. Similarly to the other three participants, this overall decrease of features suggests that Ms. Cooper may have become more selective in determining which features of her own instruction she considered important for student learning.

Table 4.40 Number of features discussed (own instruction)

Features discussed	Lesson 1	Re-eval	Lesson 2
Effective	7	3	4
Needs	5	4	3
Total	12	7	7

The number of features discussed while evaluating others' instruction. The number of *total* features Ms. Cooper identified when evaluating the CSRL cases was fairly

consistent across cases. However, the number of effective features and suggestions *within* a given case was not even. For example, for cases 1 and 3, Ms. Cooper identified more effective features and far fewer suggestions. Conversely, for cases 2 and 4, Ms. Cooper identified fewer effective features and more suggestions. Table 4.41 displays the numbers of features across the four CSRL cases. This inconsistency across cases may have been influenced by how Ms. Cooper perceived the quality of instruction for a given case. Specifically, she considered the instruction in cases 1 and 3 to be strong instructionally (evident in her Likert scores for the cases), hence more effective features and fewer suggestions. This theory works contrariwise for case 4, as Ms. Cooper evaluated the instruction as less effective on the Likert scale and provided 6 suggestions and 3 effective features.

Table 4.41 Number of CSRL case features discussed

Features discussed	Case 1*	Case 2	Case 3	Case 4
Effective	5	2	5	3
Suggestion	1	5	2	6
Total	6	7	7	9

*Ms. Cooper completed a different CSRL case than the other participants for her first case. She completed the practice case, Tanya Brown: Models Self-Monitoring Strategies

Differences in the number of features discussed over course of study. The number of features identified of Ms. Cooper's own instruction decreased over the course of the study, while the number of features she evaluated in writing for the CSRL cases moderately increased from case 1 to case 4. This difference in the number of features Ms. Cooper discussed across her own and others' instruction may have been influenced by the quality of instruction Ms. Cooper perceived the case to have presented.

Characterization 3: Ms. Cooper often provided principles of teaching and learning while discussing her own instruction. The third pattern evident in how Ms. Cooper discussed her evaluations of instruction was the extent to which she provided evidence for claims of effectiveness using principles of teaching and learning and reasons specific to her own students. Ms. Cooper provided principles of teaching and learning more than reasons specific to her students while discussing her own instruction.

Providing evidence for claims of effectiveness of Ms. Cooper's own instruction. While discussing her own instruction, Ms. Cooper typically provided reasons for why her effective features of instruction and features in need of improvement were important for student learning. These reasons Ms. Cooper provided tended to be principles of teaching and learning (as opposed to reasons, specific to her own students). Table 4.42 presents the percentage of reasons given and Table 4.43 displays the types of reasons Ms. Cooper used while discussing her own instruction. It is important to note that I asked Ms. Cooper to provide a reason for why one of her features was important for student learning (once during the Lesson 1 interview and once again at the re-evaluation interview).

Table 4.42 Ratio reasons given per feature

Features discussed	Lesson 1	Re-eval	Lesson 2
Effective	7/7	3/3	4/4
Needs	5/5	3/4	2/3
Total	12/12 or 100%	6/7 or 86%	6/7 or 86%

Table 4.43 Types of reasons given

Features discussed	Lesson 1	Re-eval	Lesson 2
Effective	1 specific; 7 principles	4 principles	4 principles
Needs	1 specific; 5 principles	1 specific; 2 principles	2 principles
Total	2 specific; 12 principles (86% principles)	1 specific; 6 principles (86% principles)	6 principles (100% principles)

During the Lesson 1 evaluation interview, Ms. Cooper always provided reasons for why the features of instruction she discussed were important for student learning, and most of these reasons were principles of teaching and learning (86%). For example, a principle Ms. Cooper used was when she explained that the "workshop model" is effective for teaching reading *because* it allows for independence and students to be learners and researchers. And an example of a reason specific to her students given during Ms. Cooper's Lesson 1 evaluation interview was when she described using student work as examples of what her other students in the classroom should be doing. She said this was effective *because* the other students in her room hear an example that is clear (an example of the exact assignment all students are working on), and her student who shares the example feels special.

During the re-evaluation of Lesson 1 interview, Ms. Cooper provided reasons for most of the features of instruction she discussed (86%), and again, most of these reasons were principles of teaching and learning (86%). For example, a principle Ms. Cooper used was when she explained the effectiveness of the structure of reading workshop because the structure allows her to work with small groups of students or one-on-one conferences while the rest of the class works independently. And an example of a reason specific to her own students Ms. Cooper provided during the re-evaluation interview was when she described having too many teaching points in her small group lesson because she thought that her students were not able to understand or focus on the objective of the lesson. And finally, during the Lesson 2 evaluation interview, Ms. Cooper gave reasons for most of the features of the instruction she identified (86%) and all of the reasons she provided were

principles of teaching and learning (100%). For instance, Ms. Cooper explained that teaching from units of study is effective for student learning because the lessons taught each day are not isolated skills, but rather lessons that "build thinking patterns of readers and the work that they do" (Ms. Cooper, Lesson 2 evaluation interview).

Providing evidence for claims of effectiveness while discussing others' instruction. When evaluating the first three CSRL cases, Ms. Cooper did not typically provide evidence for why the features she discussed were effective or in need of improvement (less than 30%). However, when evaluating the fourth case, Ms. Cooper did offer more reasons for why she discussed features as either effective or in need of improvement (67%). Table 4.44 displays how often over the four cases Ms. Cooper supported her claims of effectiveness with evidence. Unlike the evaluation interviews, participants were not prompted to provide evidence to support their claims of effectiveness while evaluating the CSRL cases. This difference may have contributed to Ms. Cooper's tendency to not provide reasons for why her features of instruction were important for student learning for the first three cases, but does not explain the increase of reasons for the fourth case.

Table 4.44 Providing evidence for claims of effectiveness (others' instruction)

Features discussed	Case 1	Case 2	Case 3	Case 4
Effective	0/5	0/2	0/5	1/3
Suggestions	0/1	2/5	1/2	5/6
Total	0/6	2/7	1/7	6/9

Differences in evidence given to support claims of effectiveness. In viewing her own instruction, Ms. Cooper provided a high percentage of reasons for why her features were important for student learning and had a tendency to use principles of teaching and

learning across the three interviews. Ms. Cooper was reminded to provide a reason for why her features were important for student learning twice, which may have contributed to her consistent use of reasons throughout the study. However, this prompting to provide reasons does not account for the increased use of principles of teaching and learning and therefore suggests evaluating the video-based cases influenced Ms. Cooper's analytic expertise.

Conclusion: Ms. Cooper's Analytic Expertise

In this section, I directly address how patterns in Ms. Cooper's evaluations of her own and others' instruction work to answer the guiding research questions. I consider what these patterns reveal about: (a) how Ms. Young evaluates others' instruction; (b) how she evaluates her own instruction, and what these patterns reveal about Ms. Young's analytic expertise.

How did Ms. Cooper evaluate others' instruction and what does this reveal about her analytic expertise? While evaluating others' instruction, Ms. Cooper evaluated the CSRL cases carefully, accessing contextual information as necessary. Overall, she approached the CSRL case analysis as a learning opportunity. During the think-aloud lesson, she sought opportunities to take away instructional ideas to try in her own classroom from the video and from the *Literacy Specialists' Comments.* She also said that the process of evaluating other teachers' instruction made her think about her own teaching and reflect on effective aspects as well as aspects she could improve.

While evaluating the CSRL cases, fewer than half of Ms. Cooper's features aligned with the Reading Specialists' evaluations. When looking more closely at Ms. Cooper's

effective features and suggestions, she was more likely to align with the Reading Specialists while discussing effective features (50% aligned), than while discussing suggestions (35%). Further, when discussing these features (in writing), Ms. Cooper rarely provided reasons for why the instruction was either effective or in need of improvement for the first three cases, however, for the fourth case, Ms. Cooper provided reasons for most of her features (67%). These findings suggest that Ms. Cooper may have begun the study with less-developed analytic expertise when evaluating others' instruction, similarly to suggestive findings for Ms. Young, as studies have found novice teachers to be less proficient (than expert teachers) at suggesting ways to improve instruction (Sato et al., 1993).

How did Ms. Cooper evaluate her own instruction and what does this reveal about her analytic expertise? While evaluating her own instruction, Ms. Cooper began the study discussing a high percentage of significant and relevant features (80%), which increased by the end of the study to discussing all significant and relevant features. Of the features that aligned with the TQs, she primarily considered features pertaining to the SEP dimension at the beginning of the study, and by the end of the study, her focus was more evenly distributed across the three dimensions. Further, Ms. Cooper began the study consistently providing evidence for her claims of the effectiveness, and using a high percentage of principles as evidence (86%). By the end of the study, Ms. Cooper provided principles for all of her features. These increases in significant and relevant features and principles of teaching and learning suggest that video-based case analysis may have influenced Ms. Cooper's analytic expertise.

Conclusion of Chapter

In this chapter, I presented findings for each participant. I discussed in detail the research context for each participant and participants' interactions with features of the CSRL cases during the think-alouds. Patterns in how participants evaluated early reading instruction were discussed so as to characterize dimensions of participants' analytic expertise. Patterns included (a) the significant and relevant features of instruction discussed, (b) the numbers of features discussed, and (c) the evidence for claims of effectiveness provided. Findings revealed insights into participants' analytic expertise, saw differences in evaluations of their own and others' instruction, and primarily confirmed guiding hypotheses, although findings concerning number of features discussed were not expected based on prior studies. Further, findings suggest that characteristics of the CSRL cases appeared to impact how participants interacted with the cases (e.g., the quality of the instruction presented may have influenced participants' evaluations). In the next chapter, Chapter 5, I discuss a cross-case analysis of findings.

CHAPTER 5

CROSS-CASE ANALYSIS

In the previous chapter, Chapter 4, I discussed each participant's analytic expertise while evaluating their own and others' instruction. The description of participants' analytic expertise in chapter 4 offers a more nuanced and in-depth perspective on how beginning teachers evaluate early reading instruction, while this chapter provides an opportunity to discuss trends across participants relevant to established criteria for analytic expertise. In this chapter, I draw from established indices of analytic expertise to discuss the following trends in participants' evaluations (a) significant and relevant features of instruction discussed, (b) number of features of instruction discussed, (c) explanatory nature of features of instruction discussed, and (d) interpretative nature of features of instruction discussed. I explore implications for these findings in Chapter 6.

Significant and Relevant Features of Instruction Discussed

One index of analytic expertise involves teachers' ability to discuss features of instruction that are significant and relevant to student learning (Krull et al., 2007; Rosaen et al., 2008; Rosaen et al., 2010; Santagata et al., 2007; Sato et al., 1993; Seidel et al., 2011; Sherin & van Es, 2005; van Es & Sherin, 2002; 2008). In this study, participants' ability to identify significant and relevant features of instruction was evaluated through an analysis of alignment of the features they identified with the TQs. Alignment with the TQs suggests

significant and relevant features because the TQs were designed to draw CSRL users' attention to features of instruction important for student learning. Additionally, to determine whether the features of instruction participants considered while evaluating the CSRL cases were significant and relevant, Reading Specialists' evaluations were used as a comparison tool. Alignment between participants' identified features of instruction and the Reading Specialists' evaluations suggested participants' identification of significant and relevant features of instruction because experienced teachers are more likely than novice teachers to discern what (instructionally) is important to attend to (Berliner, 1988; Krull et al., 2007; Sato et al., 1993).

Alignment with the TQs (Own Instruction)

Participants in this study viewed videos of their own and other teachers' instruction. After viewing the videos, they were asked to identify aspects of the instruction that they thought were effective and aspects of instruction they thought needed improvement. In their initial evaluations of their own instruction, all four identified some features that were aligned with the TQs; however, three of the four participants discussed features of instruction that did not align with the TQs 17% to 50% of the time. These same three participants identified a higher percentage of features that aligned with the TQs by the end of the study. Therefore, three out of four participants shifted from discussing their own instruction somewhat idiosyncratically (not aligning with the TQs), to discussing their instruction using a shared expert lens for analysis (i.e., aligned with the TQs). Table 5.1 displays a cross-case view of participants' alignment with the TQs.

Table 5.1 Alignment with the TQs (own instruction)

Participant	Lesson 1	Re-eval	Lesson 2
Ms. Young	5/10 or 50%	13/17 or 76%	2/3 or 67%

Ms. Thompson	5/5 or 100%	8/8 or 100%	4/4 or 100%
Ms. Ward	8/10 or 80%	6/6 or 100%	6/6 or 100%
Ms. Cooper	10/12 or 83%	7/7 or 100%	7/7 or 100%

Of the four participants, Ms. Young had the least alignment with the TQs for the Lesson 1 evaluation interview, in which she evaluated a video of her own instruction, as only half of Ms. Young's instructional features aligned with the TQs. The majority of the other three participants' discussions of features of instruction aligned with the TQs (ranging from 80% to 100% alignment) during the initial evaluation of their own instruction. Therefore, the fact that Ms. Young began the study discussing fewer significant and relevant features than the other three participants is not surprising given that she has the least teaching experience (Krull et al., 2007; Sato et al., 1993). Of the aligned features, Ms. Young and Ms. Cooper primarily identified features relating to the Student Engagement and Participation (SEP) dimension (80% and 60% respectively), while Ms. Thompson and Ms. Ward discussed each of the three dimensions fairly evenly, meaning they considered the purpose and design of the lesson, the methods of instruction, and aspects of the lesson dealing with student engagement. Table 5.2 presents the dimensions of the TQs participants' features of instruction aligned with while discussing evaluations of their own instruction.

Table 5.2 Dimensions of the TQs identified

Participant	Lesson 1	Re-eval	Lesson 2
Ms. Young	1 LPD*	3 LPD	1 LPD
	0 Instruction	1 Instruction	0 Instruction
	4 SEP**	9 SEP	1 SEP
	5 Non TQ***	4 Non TQ	1 Non TQ
Ms. Thompson	1 LPD	2 LPD	2 LPD

	2 Instruction 2 SEP 0 Non TQ	5 Instruction 1 SEP 0 Non TQ	1 Instruction 2 SEP 0 Non TQ
Ms. Ward	2 LPD	2 LPD	2 LPD
	3 Instruction 3 SEP 2 Non TQ	2 Instruction 2 SEP 0 Non TQ	2 Instruction 2 SEP 0 Non TQ
Ms. Cooper	2 LPD	3 LPD	3 LPD
	2 Instruction 6 SEP 2 Non TQ	2 Instruction 2 SEP 0 Non TQ	1 Instruction 3 SEP 0 Non TQ

* LPD stands for Lesson Purpose and Design ** SEP is for Student Engagement and Participation *** Non TQ signifies how many features of instruction a participant considered that did not align with a dimension of the Thinking Questions

For the re-evaluation, most of Ms. Young's instructional features aligned with the TQs (76%), while the other three participants' features aligned 100% of the time. Ms. Young remained focused on the SEP dimension of the TQS (70%); while Ms. Cooper shifted her attention away from focusing on the SEP dimension to a more evenly distributed focus across all three dimensions. Ms. Thompson shifted her focus from all the dimensions to primarily discussing the Instruction dimension, and Ms. Ward's focus remained evenly distributed across the three dimensions.

And finally, during the evaluation interview of Lesson 2, well over half of Ms. Young's features aligned with the TQs (67%), and similar to the re-evaluation of Lesson 1 all of the features the other three participants identified aligned with the TQs (100%). While discussing their evaluations of Lesson 2, the instructional focus of all four participants' evaluations was more evenly distributed across the three dimensions of TQs, although Ms. Thompson, Ms. Young and Ms. Cooper considered features pertinent to the LPD and SEP dimensions somewhat more than the Instruction dimension. Recall that participants were asked to respond to the Instruction dimension TQs for only two of the

CSRL lessons, whereas participants were asked to respond to the LDP dimension for six lessons and the SEP dimension for four of the CSRL lessons. In other words, participants were exposed to the LDP and SEP dimension of the TQs at least twice as often as the Instruction dimension. Therefore, participants' tendency to discuss fewer features aligned with the Instruction dimension at the end of the study may have been a byproduct of the underrepresentation of the Instruction dimension presented with the CSRL lessons.

Three of the four participants experienced an increase in percentage of significant and relevant features from the beginning of the study to the end of the study. This increase in the percentage of features of instruction aligning with the TQs after evaluating the CSRL cases is consistent with another study of CSRL (Rosaen et al., 2013). Although no causal claims can be made, three of the four participants discussed their instruction differently after evaluating the CSRL cases, meaning they selected features of instruction to discuss that were more aligned with the TQs. The differences in how participants discussed their instruction were not random, but rather resembled qualities of the intervention (i.e., the TQs). Therefore, engaging with lesson analysis such as CSRL may support teachers' ability to focus on student learning in their evaluations of instruction. Further, most participants began the study identifying some features of their own instruction that did not align with the TQs and ended the study discussing their own instruction using more of a shared lens (i.e., aligned more with the TQs), suggesting that tools such as CSRL, may be important components to supporting teachers in developing more expert lenses for evaluating instruction.

Alignment with the Reading Specialists (Others' Instruction)

While evaluating the CSRL cases (i.e., discussing in writing the effective features and suggestions for improving instruction), the degree of alignment between features participants identified and the Reading Specialists' evaluations varied across cases and appeared to be influenced by the quality of the instruction presented in a given case. All four participants, however, discussed at least some significant and relevant features (ranging from 25% to 100% alignment with the Reading Specialists' evaluations). Alignment between features of instruction and the Reading Specialists' evaluations revealed characteristics of analytic expertise. Table 5.3 presents the percentage of significant and relevant features of instruction participants identified while evaluating the CSRL cases.

Table 5.3 Significant and relevant features discussed (of others' instruction)

Participant	Case 1	Case 2	Case 3	Case 4
Ms. Young	2/6 or 33%	4/6 or 67%	2/6 or 33%	¼ or 25%
Ms. Thompson	4/6 or 67%	4/6 or 67%	4/5 or 80%	2/4 or 50%
Ms. Ward	3/5 or 60%	4/4 or 100%	3/3 or 100%	2/4 or 50%
Ms. Cooper	N/A	3/7 or 43%	2/7 or 29%	3/9 or 33%

*Ms. Cooper evaluated a different case than the other participants and the Reading Specialists; therefore her evaluation for case 1 is not included in this section

For the first case, *Leena Zeeban Builds ELL Students' Language and Literacy,* alignment with the Reading Specialists' evaluations ranged from 33%-67% alignment. However, for the second case, *Kate Kaufmann: Lessons on Character Study,* alignment ranged from 43% to 100%. This increased alignment across cases may be evidence of participants evaluating instruction more expertly. Increased alignment may have also been influenced by the quality of instruction presented in the two cases. Specifically, the Reading Specialists evaluated the instruction in the second case as much stronger in quality than the instruction presented in the first case (as indicated by their Likert score evaluations).

Therefore, it is possible that the effective features in the second case were easier to identify and perhaps more obvious than the effective features in the first case.

While discussing the effective features and suggestions for improvement for the third case, *Karla Smith Integrates Literacy and Social Studies*, Ms. Thompson's and Ms. Ward's alignment with the Reading Specialists was high (80% and 100% respectively). However, Ms. Thompson's and Ms. Ward's evaluations for the fourth case, *Christina Williams: Teaching Narrative Structures*, only somewhat aligned with the Reading Specialists (50% alignment). Further, when looking across the two Reading Specialists' evaluations for the fourth case, their evaluations lacked commonality (i.e., the features they discussed had far less overlap than other cases). This lack of unity across evaluations while discussing the fourth case may be due to the fact that the instruction presented in the fourth case was considered to be less effective instruction (as indicated by participants and Reading Specialists' Likert score evaluations). It is possible that weaker instruction is more challenging to evaluate, hence the lack of alignment across evaluators, because with weaker instruction there may be fewer effective features to identify and numerous features that need improvement.

Additionally, when looking across the four CSRL cases, Ms. Young and Ms. Cooper considered features of instruction that aligned with the Reading Specialists' evaluations less than 50% of the time (on average), while Ms. Ward and Ms. Thompson's evaluations aligned with the Reading Specialists' evaluations with a much higher rate of alignment. Differences in alignment between features participants discussed and the Reading Specialists' evaluations across the four participants provide further evidence that Ms. Young began the study with less-developed analytic expertise in identifying significant and

relevant features of others' instruction, whereas Ms. Ward and Ms. Thompson appear to have begun the study with more developed analytic expertise in this area (Krull et al., 2007; Sato et al., 1993). Although this study was not designed to contrast novice and expert teachers, differences in teaching experience across participants within the early career parameters established for this study provide an additional window into how analytic expertise develops for beginning teachers at different points in their early careers (e.g., one year of teaching experience versus seven years of experience).

Number of Features of Instruction Discussed

Another indicator of analytic expertise examined in this study is related to the number of features, or instructional content, of the instruction discussed by teachers. Prior expert/novice studies have found that when teachers are asked to comment on everything they see and hear in a lesson, expert teachers make more comments concerning the content of the lesson than do novice teachers (Berliner, 1988; Krull et al., 2007; Sato et al., 1993). In this study, I examined the number of features participants identified at each time point and whether participants increased or decreased in the number of features of their own and others' instruction they discussed over the course of the study.

Number of Features Identified While Evaluating Own Instruction

Some participants began the study discussing more features of their own instruction than other participants, however, the number of features identified for most participants fluctuated over the course of the study. The findings from this study, in terms of the number of features discussed, are at times inconsistent with a prior study of expert/novice lesson analysis (Sato et al., 1993). That is, rather than documenting an increase in the

number of features discussed, this study points to a narrowing of focus in terms of what features of instruction participants consider to be important for student learning.

While discussing Lesson 1, Ms. Cooper identified the most features (12 features), while Ms. Ward and Ms. Young considered slightly fewer features (10 features), and Ms. Thompson examined the fewest number of features (5 features). All participants identified more effective features than features in need of improvement. Participants may have discussed more effective features than features in need of improvement because participants were discussing their own instruction, making it easier or more comfortable to discuss aspects of their own instruction that were effective. Table 5.4 displays the number of features participants identified of their own instruction over the course of the study.

Table 5.4 Number of features discussed (own instruction)

Participant	Lesson 1	Re-eval	Lesson 2
Ms. Young	10 Total	17 Total	3 Total
Ms. Thompson	5 Total	8 Total	4 Total
Ms. Ward	10 Total	6 Total	6 Total
Ms. Cooper	12 Total	7 Total	7 Total

The number of features participants identified at the outset of the study appears inconsistent with other studies of analytic expertise, in which participants with more analytic expertise identified more features of instruction (Sato et al., 1993). For example, Ms. Young discussed twice as many features as Ms. Thompson while evaluating Lesson 1. Given Ms. Thompson's role as a lab teacher in her school, and the other indices of analytic expertise, Ms. Thompson's analytic expertise often appeared more developed than Ms. Young's analytic expertise at the beginning of the study. Therefore, it is reasonable to assume that Ms. Thompson would have begun the study discussing more features of instruction than Ms. Young. However, because participants in this study were asked to

identify and discuss the most salient features of instruction, the design of the study implies a narrowing of focus in terms of what features of instruction participants were asked to discuss. Therefore, the fact that Ms. Thompson began the study discussing significantly fewer features than the other three participants may be another indication that she was better equipped to identify and discuss the most salient features of her own instruction.

During the re-evaluation of Lesson 1, Ms. Young identified the most features (17 features), while Ms. Thompson, Ms. Ward, and Ms. Cooper discussed far fewer features (8 features, 6 features, and 7 features respectively). Ms. Young and Ms. Cooper discussed more features in need of improvement during the re-evaluation of Lesson 1, while Ms. Thompson identified more effective features. Ms. Ward discussed the same number of effective features and features in need of improvement. The fact that all four participants began the study discussing more effective features of instruction, and then three of the four participants discussed more features in need of improvement for the re-evaluation of Lesson 1, indicates that participants noticed aspects of their own instruction in need of improvement that had not occurred to them (or they had not felt comfortable sharing) during their first evaluation of Lesson 1. This shift in features discussed after working with the CSRL cases is an important shift as it implies that participants viewed and re-evaluated Lesson 1 with a different lens for analysis and may indicate that the experience of evaluating the CSRL cases contributed to this shift in attention.

Finally, during the Lesson 2 evaluation interview, Ms. Young and Ms. Thompson identified the fewest features (3 and 4 features respectively), and Ms. Ward and Ms. Cooper examined the most features (6 features and 7 features respectively). This overall decrease in features identified across all four participants may be explained by the nature of the

study. Specifically, participants were asked during each interview to discuss features of their instruction they found to be the most critical or important for student learning, implying a narrowing of focus over the course of the study. In looking across indices, as the number of features of instruction discussed decreased over the course of the study (from Lesson 1 to Lesson 2), the number of significant and relevant features discussed increased. This suggests that the decrease in the number of features identified over the course of the study indicates that participants became more selective in the features they found salient for student learning, likely signaling analytic expertise development. Similarly, in a study of expertise, Carter, Sabers, Cushing, Pinnegar, and Berliner, (1987) found that expert teachers attended more to instruction that was atypical (as opposed to typical)—or outside of what they would expect to see in a particular context. Therefore, although expert teachers discuss more content than novice teachers, expert teachers choose to process less of what they see (Berliner, 1988). Therefore, it is reasonable to presume that increased selectivity in what constitutes salient or important features of instruction for student learning is evidence of analytic expertise.

Number of Features Discussed While Evaluating Others' Instruction

Patterns in the number of features discussed in the participants' evaluations (written responses of the effective features and suggestions for improvement for the cases) were difficult to discern when looking across CSRL cases. Table 5.5 displays the number of features discussed across cases and participants. However, when looking across participants, the number of features identified appeared to be influenced by the perceived quality of instruction. Specifically, if a participant considered the instruction to be stronger (as indicated by mostly 1's and 2's on the Likert scale evaluation), then participants tended

to discuss more effective features and fewer suggestions. For example, Ms. Young evaluated the first case as primarily effective (by way of the Likert scale evaluations) and provided more effective features than suggestions, which reflects her perception of the quality of instruction being effective. Further, Ms. Thompson and Ms. Ward evaluated the second case as being effective (Likert scale responses), and their effective features and suggestions reflect this perceived quality of instruction because they have more effective features than suggestions.

Table 5.5 Number of features discussed (others' instruction)

Participant	Case 1	Case 2	Case 3	Case 4
Ms.Young	4 Eff 2 Sugg 6 Total	2 Eff 4 Sugg 6 Total	3 Eff 3 Sugg 6 Total	2 Eff 2 Sugg 4 Total
Ms. Thompson	3 Eff 3 Sugg 6 Total	5 Eff 2 Sugg 7 Total	3 Eff 2 Sugg 5 Total	3 Eff 1 Sugg 4 Total
Ms. Ward	3 Eff 2 Sugg 5 Total	3 Eff 1 Sugg 4 Total	1 Eff 2 Sugg 3 Total	2 Eff 2 Sugg 4 Total
Ms. Cooper	5 Eff 1 Sugg 6 Total	2 Eff 5 Sugg 7 Total	5 Eff 2 Sugg 7 Total	3 Eff 6 Sugg 9 Total

*Ms. Cooper completed a different case than the other participants for her first case. She completed the practice case, Tanya Brown: Models Self-Monitoring Strategies

The inverse of this phenomenon also occurred, however less often; that is, if a participant considered the instruction of a given case to be less effective (as indicated by 5's and 6's in their Likert scale evaluation), then participants tended to discuss more suggestions than effective features. For example, Ms. Cooper evaluated the fourth case as

somewhat less effective, and provided twice as many suggestions as effective features. This tendency was not absolute however, because at times the number of features discussed did not seem to be influenced by the perceived quality of instruction.

The lack of patterns across participants and cases, presumably due to the perceived quality of the instruction, made discerning patterns in analytic expertise across participants challenging. However, patterns in how perceived quality of instruction seem to influence participants' evaluations of the cases is an important finding nonetheless, as it provides insight into factors that may contribute to the visibility of analytic expertise development during lesson analysis.

Explanatory Nature of Features of Instruction Discussed

Still another indicator of analytic expertise involves the extent to which teachers provide explanations or reasoning for comments made about instruction (Berliner, 1998; Krull et al., 2007; Sato et al., 1993). The degree to which participants explained their thinking behind comments made while discussing their evaluations was evaluated in this study by examining whether participants provided reasons for why their features of others' instruction were either effective or in need of improvement. In this section, participants' evaluations of the CSRL cases are included, while the discussions of their own instruction are not. Recall that this decision was made because participants were prompted to provide reasons while discussing their own instruction but not while evaluating the CSRL cases.

Providing Reasons for Claims of Effectiveness

While evaluating the cases, participants varied in whether they tended to provide reasons for why the features of instruction they discussed in writing were either effective or in need of improvement. Looking across the cases, no discernible pattern was apparent

in terms of the frequency participants provided reasons for a particular case. However, there were patterns in reasons given across participants. For example, Ms. Young and Ms. Thompson provided reasons most of the time while discussing the CSRL cases (64% and 68% respectively), while Ms. Ward and Ms. Cooper rarely provided reasons for why the features they identified were effective or in need of improvement (6% and 39% respectfully). Ms. Cooper, however, had a sudden increase in reasons provided while evaluating the fourth case, *Christina Williams: Teaching Narrative Structures* (67%). Table 5.6 displays how often participants provided evidence for their claims of effectiveness while discussing (in writing) their evaluations of the cases.

Table 5.6 Providing evidence for claims of effectiveness

Participant	Case 1	Case 2	Case 3	Case 4
Ms. Young	Eff * 4/4 Sugg* 0/2 Total 4/6 (67%)	Eff 2/2 Sugg 1/4 Total 3/6 (50%)	Eff 3/3 Sugg- 0/3 Total 3/6 (50%)	Eff- 2/2 Sugg- 2/2 Total 4/4
Ms. Thompson	Eff 2/3 Sugg 2/3 Total 4/6 (67%)	Eff 5/5 Sugg 2/2 Total 7/7	Eff 2/3 Sugg 1/2 Total 3/5 (60%)	Eff 0/3 Sugg 1/1 Total 1/4 (25%)
Ms. Ward	Eff 0/3 Sugg 0/2 Total 0/5	Eff 0/3 Sugg 0/1 Total 0/4	Eff 0/1 Sugg 1/2 Total 1/3 (33%)	Eff 0/2 Sugg 0/2 Total 0/4
Ms. Cooper	Eff 0/5 Sugg 0/1 Total 0/6	Eff 0/2 Sugg 2/5 Total 2/7 (29%)	Eff 0/5 Sugg 1/2 Total 1/7 (14%)	Eff 1/3 Sugg 5/6 Total 6/9 (67%)

*Eff stands for effective features **Sugg stands for suggestions

These difference in the extent to which participants were explanatory in their written responses to the TQs may have been influenced by the fact that participants were given the option of evaluating the CSRL cases by hand or electronically. This option was

given to participants in case they found it challenging to go back and forth between the CSRL website and the electronic response document (in Word). Ms. Thompson and Ms. Young evaluated their cases electronically, while Ms. Ward and Ms. Cooper completed their responses to the TQs by hand on a hard copy of the response document. It is possible that Ms. Thompson and Ms. Young were more explanatory than Ms. Ward and Ms. Cooper while evaluating the cases, because Ms. Thompson and Ms. Young completed the work electronically (i.e., it may have been easier to write more electronically than when writing by hand).

When looking at the extent to which participants provided reasons while discussing suggestions versus effective features, it is apparent that Ms. Young provided far fewer reasons while discussing suggestions (27%) than while discussing effective features of instruction (100%). Ms. Thompson, conversely, provided reasons for effective features (64%) at nearly the same rate as she did while discussing suggestions (75%). Existing literature on expert and novice teachers have found that novice teachers are less proficient than expert teachers at suggesting ways to improve instruction (Sato et al., 1993). Therefore, because Ms. Young was four times less likely to provide reasons for why her suggestions were important for student learning than when discussing effective features, and Ms. Thompson was equally as likely to provide reasons when discussing suggestions and effective features, these findings provide additional evidence that Ms. Young may have started the study with less analytic expertise than Ms. Thompson. Specifically, these findings further substantiate a previously discussed indicator of analytic expertise discussed, namely years of teaching experience impacting participants' inclination to discuss significant and relevant features of instruction, and provide further insight into

how analytic expertise develops for beginning teachers at different points in their early careers (e.g., one year of teaching experience versus seven years of experience).

Interpretative Nature of Features of Instruction Discussed

Another indicator studies have shown that reveals analytic expertise involves the interpretative nature of teachers' comments while evaluating instruction (van Es & Sherin, 2002; 2008; 2010; Krull et al., 2007). The extent to which participants in this study were interpretative in their evaluations of instruction was determined by examining the use of principles of teaching and learning, as opposed to reasons specific to participants' students. Reasons participants provided while explaining why their own instruction was either effective or in need of improvement were considered principles if participants discussed their reasoning in a generalizable fashion, rather than stating an explanation only applicable to one specific student or group. For example, a principle of teaching and learning Ms. Ward provided was when she discussed that students need to read during most of the guided reading time to "fit in the most learning possible." (Ms. Ward, Re-evaluation interview)

Principles of Teaching and Learning

Some participants began the study using principles to discuss their own instruction, while other participants did not. During the Lesson 1 evaluation interview, three of the four participants provided principles while explaining why their features of instruction were important for student learning. Ms. Young and Ms. Ward provided principles some of the time (10% and 36% respectively), while Ms. Cooper provided principles for most of her reasons (86%). Ms. Thompson did not use any principles while discussing her Lesson 1 evaluation. Table 5.7 displays the types of reasons participants gave while discussing why

their effective features and features in need of improvement were important for student learning.

Table 5.7 Types of reasons given

Participant	Lesson 1	Re-eval	Lesson 2
Ms. Young	8 specific 1 principle (10%*)	13 specific 5 principles (29%)	1 specific 2 principles (67%)
Ms. Thompson	3 specific 0 principles	7 specific 1 principle (13%)	3 specific 0 principles
Ms. Ward	7 Specific 4 principles (36%)	2 specific 5 principles (71%)	1 specific 6 principles (86%)
Ms. Cooper	2 Specific 12 principles (86%)	1 specific 6 principles (86%)	0 specific 6 principles (100%)

*all percentages are of principles used versus reasons specific to their own students

While discussing the re-evaluation of Lesson 1, Ms. Ward and Ms. Cooper used principles more than reasons specific to their students (71% and 86% respectively), while Ms. Young and Ms. Thompson used principles far less frequently (29% and 13% respectively). And finally, while discussing Lesson 2 evaluations, Ms. Young, Ms. Ward, and Ms. Cooper used principles for the majority of their reasons (67%, 86% and 100% respectively). Ms. Thompson, however, did not use principles while discussing her Lesson 2 evaluation.

Finally, the frequency with which participants provided principles, as opposed to reasons specific to their own students, increased over the course of the study. Although this study is not positioned to make causal claims, the increase in use of principles over the four participants suggests that evaluating the CSRL cases may have influenced participants' approach to discussing instruction, namely supporting teachers to discuss their instruction using principles of teaching and learning. Given that expert teachers' knowledge is "connected and organized around important ideas" of teaching and learning (Bransford et

al., 2005, p. 41), it is possible that the experience of evaluating the cases (e.g., thinking about TQs, considering *Literacy Specialists' Comments*) provided participants with a more expert lens for thinking about instruction, as the use of principles implies a move from being highly focused on one's own situation and experience to thinking about instruction using accumulated, professional expertise.

Summary of Findings

Findings from this cross-case analysis reveal insights into the guiding research questions addressing, (a) beginning teachers' analysis of their own instruction while engaged in a lesson analysis tool, (b) beginning teachers' analysis of others' video-recorded early reading instruction while engaged in a lesson analysis tool, and (c) beginning teachers' analytic expertise in early reading instruction while engaged in a lesson analysis tool. First, in terms of participants' own instruction, findings reveal that (a) most participants began the study discussing aspects of instruction not aligning with the TQs, however, ended the study discussing more significant and relevant features of instruction, (b) some participants began the study using principles of teaching and learning, as opposed to reasons specific to their own students, and increased for all four participants over the course of the study, and (c) all four participants discussed fewer features over the course of the study. When examining participants' evaluations of others' instruction, findings reveal that (a) participants with more teaching experience (i.e., years of teaching) discussed significant and relevant features of instruction more often than teachers with less teaching experience, (b) participants' perceived quality of instruction seemed to influence the number of effective features and suggestions discussed, and (c) participants inclusion of reasons appeared to be impacted by format of response (i.e., hard copy verse electronic) as

well as years of teaching experience. Finally, in terms of analytic expertise, findings reveal that (a) some participants began the study with more-developed analytic expertise than other participants, (b) analytic expertise appears to be linked with years of teaching experience (even within the beginning teachers parameters established in this study), and (c) all four participants appeared to develop analytic expertise, although not uniformly, over the course of the study.

Conclusion of Chapter

In this chapter, I described a cross-case comparison of each of the four participants and what their evaluations of their own and others' instruction reveals about analytic expertise. I drew from established indices of analytic expertise to do this analysis. Results suggest that analytic expertise, when discussing evaluations of instruction, is a complex construct, involving separate dimensions (e.g., identifying significant and relevant features of instruction, being explanatory) that appear to be unequally developed across participants and unequally supported by engaging in lesson analysis. Many of the guiding hypotheses were confirmed, however some were disconfirmed. In the following chapter, Chapter 6, I discuss the limitations of this study, implications for the findings, and suggestions for future research.

CHAPTER 6

CONCLUSION

This study sought to closely examine and describe participants' evaluations of their own and others' early reading instruction and to investigate possible evidence of analytic expertise, when exposed to a video-based lesson analysis tool. The findings from this study revealed insights into participants' analytic expertise, revealed differences in evaluations of their own and others' instruction, confirmed findings from prior studies of analytic expertise, and presented potential direction for future research. In this final chapter, I begin with a discussion of the implications for these findings, followed by limitations of this study, and conclude the chapter with suggestions for possible future research.

Implications

Research concerning the development of beginning teachers' analytic expertise has been increasing in attention, however research is still limited, especially in early reading instruction. Little is known about how teachers evaluate their own and others' early reading instruction, and whether insights can be gained from these evaluations into teachers' analytic expertise. Therefore, this study sought to understand how beginning teachers evaluate their own and others' early reading instruction while they engaged with a video-based lesson analysis tool, CSRL, so as to contribute to the conversation around conceptualizing and developing analytic expertise in reading instruction. Findings from this

study have implications for educational researchers, teacher educators, and professional development designers.

Educational Researchers

Studies have shown that teachers evaluate instruction differently based on teaching expertise (Krull et al., 2007; Sato et al., 1993). Further, studies investigating the analysis of video and other records of practice have seen shifts in how participants evaluate instruction after engaging in lesson analysis. I draw from studies of analytic expertise and seek to contribute to existing knowledge concerning teachers' analytic tendencies and the development of analytic expertise, specifically in the area of reading instruction. The findings from this study have implications for educational researchers studying teachers' analytic expertise.

Number of features discussed and analytic expertise. Although a number of outcomes from this current study confirmed and extended findings seen in prior studies of analytic expertise, one indicator of analytic expertise explored in this study does not. Specifically, findings concerning the number of features of instruction participants discussed reflecting analytic expertise and analytic expertise development were contrary to prior studies. Prior studies found that, when expert and novice teachers are asked to comment on everything they see and hear in a lesson, expert teachers make more comments concerning the content of the lesson than do novice teachers (Berliner, 1988; Krull et al., 2007; Sato et al., 1993). Drawing on this research, I anticipated at the outset of the study that participants would discuss a few features, because this study is of beginning teachers. Further, by the end of the study I anticipated that participants would discuss more features of instruction important for student learning because of their work with

CSRL (because CSRL is designed to support teachers to evaluate instruction more expertly). However, participants over the course of the study did not discuss more features of instruction, but rather fewer features of instruction. This outcome of my study is important for educational researchers to consider as it departs from existing research and provides insight into studying the analytic expertise and analytic expertise development of beginning teachers.

One important insight for researchers to consider is that the overall decrease in features discussed over the course of the study cannot be explained by the design of the study alone. Recall that unlike other studies of analytic expertise in which participants were asked to discuss everything they see and hear while viewing the lesson, participants in this study were asked to identify and discuss only the most salient or critical features of instruction. Therefore, the design of the study implied a narrowing of focus in terms of the features participants were asked to discuss. However, participants in this study were asked to discuss the most salient or important aspects of instruction for each of the three interviews (Lesson 1, re-eval, and Lesson 2), which does not explain why all four participants would discuss increasing fewer features over the course of the study.

Although the overall decrease in features discussed cannot be explained by the design of the study, prior studies of analytic expertise may be able to. Specifically, there is evidence that, although expert teachers see and hear more than novices, they process less of what they are seeing and hearing than novices (Berliner, 1988). That is, experts quickly (and perhaps subconsciously) discern the importance of an instructional event and then only attend to aspects of instruction that seem salient based on their vast experience in the classroom (Berliner, 1988). Therefore, the tendency for participants in this study to discuss

increasingly fewer features of instruction over the course of the study may be evidence of participants becoming more selective in what they identify as salient to student learning, thus signaling analytic expertise development. This is an important insight for researchers to consider, because the significance of the number of features of instruction participants discuss appears to depend on the context of the study.

Another important insight for researchers to take into consideration when studying analytic expertise is that being selective in terms of the aspects of instruction a teacher identifies as important for student learning may be an indicator of not only analytic expertise development, but also static analytic expertise. Evidence to support this theory is that Ms. Thompson, who was the most experienced teacher in terms of years taught, discussed the fewest features of her own instruction (compared to the other three participants) at the beginning of the study and appeared to be more expert in other areas of analytic expertise (e.g., significant and relevant features discussed). Given the design of the study (asked to discuss most salient aspects of instruction), the fact that Ms. Thompson began the study discussing far fewer features than other participants may indicate that Ms. Thompson was better equipped to identify and discuss the most salient features of her own instruction. As such, discussing fewer features of instruction when asked to identify the most important features impacting student learning may be indicative of not only analytic expertise development in studies such as this (as previously discussed in this section), but may also reveal evidence of the current state of one's analytic expertise.

Future studies, in which participants are asked to identify the most salient or critical features of instruction for student learning should investigate whether participants who are more selective in the features of instruction they discuss are also able to evaluate

instruction more expertly. Such studies could speak to the ways in which teachers are supported in lesson analysis.

Teaching experience reveals differences in analytic expertise. Some of the outcomes from this current study confirmed findings from prior research that examined differences between expert and novice teachers' analysis of instruction (Krull et al., 2007; Sato et al., 1993). Although this current study did not intend to contrast teachers with less and more experience, as this study is of early career teachers, there were differences in evaluations of instruction evident across participants with more and less experience within the "early career teacher" parameters. In particular, three findings from this current study are important for educational researchers to consider as they provide insight into how analytic expertise develops for beginning teachers at different points in their early careers (e.g., one year of teaching experience versus seven years of experience). These insights are valuable for the field as little is known concerning the development of analytic expertise for beginning teachers of reading (Hiebert et al., 2007).

First, at the beginning of the study, Ms. Young's analytic expertise appeared much less developed than the other three participants, especially when compared with Ms. Thompson. For instance, Ms. Young, who had the least teaching experience of the four participants in terms of years taught, took the most time to evaluate her think-aloud lesson, and her evaluations of the case lessons were the least aligned with the Reading Specialists' evaluations. She also discussed the fewest features of her own instruction that aligned with the TQs. Whereas Ms. Thompson, who had the most teaching experience in terms of years taught, evaluated the think-aloud lesson quickly and discussed features of her own instruction that aligned with the TQs more often than the other participants, meaning that

Ms. Thompson was able to discern features of instruction important for student learning quickly and accurately. These findings, in which the two participants with the most variance in teaching experience began the study with varying degrees of analytic expertise, are consistent with prior studies of novice and expert teachers' analysis of instruction. Prior studies confirm these findings, as other researchers have found that expert teachers, during think-alouds, evaluate other teachers' instruction quicker than novices (Sato et al., 1999) and were able to identify key concepts of the instruction, while novice teachers could not (Krull et al., 2007; Sato et al., 1999). Therefore, differences seen in analytic expertise across expert and novice teachers in prior studies of analytic expertise (in which "experts" were defined as master teachers with at least 10 years of teaching experience and "novice teachers" were defined as first year teachers) are evident in this current study when examining beginning teachers at various points in their early careers.

Second, when compared to the other participants, Ms. Young's analysis of instruction shifted the most in ways consistent with analytic expertise. Ms. Young's analytic expertise appeared to have shifted across all four indices of analytic expertise examined in this study and typically experienced the greatest shifts (in terms of percentage of increase from Lesson 1 to Lesson 2). Over the course of the study, Ms. Young's analytic expertise shifted in the following ways: (a) the frequency of significant and relevant features Ms. Young discussed increased; (b) she became more selective from Lesson 1 to Lesson 2, as the number of salient features of reading instruction she identified as impacting student learning decreased; (c) she appeared more explanatory in her discussion of instruction from Lesson 1 to Lesson 2, as the frequency of reasons given to support claims of effectiveness increased; and (d) when examining the quality of the reasons given, the

frequency with which Ms. Young presented principles of teaching and learning also increased from Lesson 1 to Lesson 2. Ms. Young likely experienced the greatest shifts in analytic expertise over the course of the study because she began the study exhibiting the least analytic expertise and, subsequently, had the most potential for improvement. Therefore, findings from this study suggest that teachers with the least teaching experience and less-developed analytic expertise may experience the greatest gains in analytic expertise from working with lesson analysis tools, such as CSRL.

Third, findings suggest that analytic expertise is a complex construct, involving separate dimensions (e.g., identifying significant and relevant features of instruction, being explanatory) that appear to be unequally developed across participants and unequally supported by engaging in lesson analysis. Participants in this study may appear to have well-developed analytic expertise when examining one dimension (i.e., established criteria), however, when examining another dimension, appear to have less-developed analytic expertise. For example, on multiple indices of analytic expertise, Ms. Thompson appeared to have well-developed analytic expertise. However, she was least likely to use principles of teaching and learning over the course of the study. Given her position as a lab teacher within her school district, one might assume that her analytic expertise would be well developed across all indices. Participants' analytic expertise may appear unevenly developed because teachers in this study were all beginning teachers. Further, it is reasonable to assume that teachers at varying stages of their early careers would appear expert in some dimensions of analytic expertise and novice in others, and would develop in their analytic expertise over the course of the study in unique and nonlinear ways (Snow et al., 2005).

Teacher Educators

Lesson analysis as a support for novice teachers' professional discourse.

Findings from this study have important implications for teacher educators as well. With calls for the improvement of educational opportunities for students, much of the responsibility for supporting teachers in improving their practice falls on teacher educators. Further, lesson analysis tools may also support novice teachers in developing their professional discourse. Teacher educators must consider how to prepare teachers to discuss instruction in productive and meaningful ways when providing opportunities for lesson analysis. When teacher educators have attempted to implement lesson analysis professional development in the past, many educators have found that U.S. teachers do not possess the skills, knowledge and dispositions necessary to engage in professional discourse around teaching and learning, and assert that teachers must be supported in order to develop them (Ball & Cohen, 1999; Hiebert et al., 2007; Santagata, 2009).

One problem contributing to this situation is that U.S. teachers typically do not have regular opportunities to develop the skills, knowledge, and dispositions necessary to engage in professional discourse around teaching and learning, as U.S. teachers are typically solely responsible for the learning of their students and engage in very little collaboration or sharing of instructional practices with colleagues (Ball & Cohen, 1999; Lampert & Graziani, 2009). An atmosphere such as this may not foster the skills necessary for thoughtful and critical examination and discussion of instruction within a collegial setting.

The findings from this study suggest that the instructional analysis opportunities presented in resources such as CSRL may be an important step in developing the skills

necessary to engage in meaningful professional discourse around teaching and learning. Specifically, participants began the study discussing their instruction in ways specific to their own experience (i.e., some features participants discussed did not align with the TQs and participants used reasons specific to their students), and, by end of the study, participants discussed their own instruction in more shared ways (i.e., the features aligned with the TQs and used more principles of teaching and learning). Because the TQs were developed by experts in the field, for the purpose of bringing teachers' attention to aspects of instruction important for student learning, increased alignment between the TQs and the features of instruction participants discussed implies that participants were beginning to view and evaluate their own instruction through a shared expert lens.

These findings warrant consideration by preservice and practicing teacher educators alike, as both groups call for the improvement of teachers' professional discourse around instruction. Providing opportunities for future practitioners to analyze instruction is an important step as well, as this type of work has not been the focus of teacher education programs (Hiebert et al., 2007; Putman & Borko, 2000). Learning to discuss instruction through a shared expert lens in a preservice setting would prepare future teachers to continue to learn in and from practice once they begin their teaching careers (Hiebert et al., 2007), would provide a foundation for building, "norms for knowledge and discourse within the profession" (Ball & Cohen, 1999, p. 19), and would set preservice teachers on the path to becoming adaptive experts (Bransford et al., 2005).

Professional development designers

There is agreement that teachers are by and large in need of professional learning opportunities that foster their ability to learn in and from practice (Ball & Cohen, 1999;

Borko et al., 2009); however, there is far less agreement regarding how tools should be designed to provide these types of learning opportunities (LeFevre, 2004). The findings from this study have implications for professional development designers and researchers of such tools.

When providing teachers with opportunities for lesson analysis, one important consideration is whether facilitated lesson analysis is possible and sustainable. Studies have examined the use of lesson analysis with a facilitator or in a group setting (LeFevre, 2004; Sherin, van Es, 2009), and have made recommendations that materials designed for the analysis of instruction be used in the context of a facilitator (LeFevre, 2004). However, the reality is that many educators cannot afford facilitated professional development.

Many video-based lesson analysis tools have been designed and studied with the intention of being used in a group setting with a facilitator (LeFevre, 2004; Sherin, van Es, 2009). One proponent of facilitated lesson analysis, LeFevre (2004), explains that facilitators in her video-based curriculum are responsible for: (a) supporting teachers in actually engaging in the mathematics that the student do in the video; (b) promoting a tentative stance in discussing the videotaped lessons; (c) backing up claims, conjectures, and assertions with evidence; and (d) promoting teachers in taking multiple perspectives. Resources with structured approaches to lesson analysis, such as CSRL, on the other hand, have been designed with these guiding characteristics embedded in the program, such that these resources can be used with or without a facilitator. For instance, a component of CSRL, the *Literacy Specialists Comments*, presents claims of effectiveness using a tentative stance, backs up claims with evidence, and often approaches their evaluations taking multiple perspectives. Further, the materials case teachers use are included, such that

teacher users evaluating the cases can participate in the text-based comprehension lesson with which students participate in the video. And finally, the TQs provide theoretical guidance to support teachers in considering aspects of effective early reading instruction. Therefore, teacher users of lesson tools such as CSRL are guided in their analysis of instruction, similar to having a facilitator, however, without the cost of a facilitator.

The findings from this study suggest that participants evaluated their own instruction differently after working with the CSRL cases (e.g., alignment with the TQs and used more principles of teaching and learning), and participants reported benefiting from their experience working with the cases. For instance, Ms. Young described noticing her evaluations of the cases becoming more aligned with the Literacy Specialists' evaluations, which she took as evidence of her own learning. Ms. Ward discussed having a more general sense that the experience working with the cases had influenced not only her teaching, but also her planning and reflection on teaching. Citing these findings is not to suggest that video-based curriculum for teachers should never have facilitators, but rather to suggest that it is possible to provide the type of guidance LeFevre recommended that necessitates facilitators, however, in another way, such that video-based lesson analysis tools could stand alone. Therefore, resources like CSRL, with embedded guidance for analysis, are a viable option, and should be considered by professional development designers.

Limitations

This study had limitations that should be taken into consideration. As with any study of this nature, the teachers who were willing to participate may have been more homogeneous than heterogeneous on multiple dimensions. For example, participants willing to evaluate instruction and videotape their own instruction likely chose to

participate because they were comfortable with analytic exercises around instruction. Other teachers who were interested in the professional development aspect of the study, but who chose not to participate in the study, were perhaps uncomfortable with other facets of the study (such as videotaping and evaluating their own instruction). Videotaping instruction is not commonplace in U.S. schools and teachers can feel vulnerable or uncomfortable having their instruction videotaped; this has been the case for other studies (Sherin & van Es, 2004). Investigating analytic expertise with a more diverse sample of participants could have provided more information about beginning teachers' analytic expertise and thus, richer findings.

Another limitation that should be noted is that participants completed the cases on their own (i.e., not in the presence of researchers), because participants had access to the cases online. Users of CSRL have reported this option (being able to access CSRL online) as a benefit of the resource design in prior studies (Rosaen et al., 2013), as teachers appreciated being able to work on the cases at their convenience. However, the option for participants to complete the cases on their own time also brings study design challenges. For instance, because participants completed the cases independently, one participant, Ms. Cooper, accidentally completed the practice case, *Tanya Brown Models Self-monitoring Strategies*, instead of the first case participants had been assigned. Further, during Ms. Ward's think-aloud, the website was unavailable, consequently Ms. Ward had to complete, *Christina Williams: Teaching Narrative Structures*, for her third case, while the other participants completed the Karla Smith' case. And finally, it is unclear whether the fact that participants were given the option of writing their responses to the TQs in an electronic document or on a printed hard copy (written by hand) impacted the extent to which

participants discussed (in writing) a given lesson. Such inconsistencies in the implementation of the study were somewhat problematic, particularly for the cross-case analysis.

Given that this study was not intended as an efficacy study, the small sample size was not a limitation as far as making causal claims. However, the small sample size was still a limitation in that more participants would have yielded perhaps additional insights into beginning teachers' analytic expertise. Further, because of teachers' busy schedules, arranging interviews was at times challenging (especially around the holidays and report cards). Because interviews did not occur immediately following participants' evaluations, the likelihood that other external factors influenced what they discussed about their evaluations increased. Although participants were asked about possible influences on their evaluations of instruction (e.g., other school professional development), not all influences can be considered.

Further, as previously mentioned, a study design limitation is that participants were asked to re-evaluate Lesson 1. As with any re-test situation, the experience of re-watching their own instruction could have enabled participants to identify more and different features of instruction that they had not identified and discussed during the first evaluation interview of Lesson 1. And finally, I, as a researcher likely impacted what participants did and how they evaluated instruction even though this was never my intent. The interview questions I asked participants, how I asked questions, and the design of the study may all have impacted how participants evaluated instruction and what they chose to discuss during interviews.

Future Research

Suggestive findings from this study warrant future research. In this section, I discuss recommendations for future research in the following areas (a) quality of instruction as influence on participants' evaluations, (b) evaluating video-based cases of early reading instruction in group setting, (c) instructional content of cases as influence on participants' teaching, (d) aspects of instruction discussed grounded in observable student behavior, and (e) effects of lesson analysis on student learning.

Quality of instruction as influence on participants' evaluations. A suggestive finding in this study in need of future research is that participants appeared to evaluate the CSRL cases differently depending on the perceived quality of the lesson. Although there were counterexamples, participants often discussed more effective features and fewer suggestions if the lesson was evaluated as effective (by means of the Likert scale evaluations), and conversely, participants discussed more suggestions and fewer effective features if the lesson was evaluated as ineffective. Further, there appeared to be far less overlap in evaluations when participants discussed lessons considered to be somewhat less effective instruction, as evident in participants' and Reading Specialists' Likert scale evaluations. For example, participants and Reading Specialists' discussed a much broader and varied range of instructional practices (for both effective features and suggestions) for the fourth case study, *Christina Williams: Teaching Narrative Structures*, whereas there was considerably more alignment across participants and the Reading Specialists' while discussing the second case study, *Kate Kaufmann: Lessons on Character Study,* which was perceived to have the most effective instruction of the four case studies (again, as evident in Likert scale evaluations).

Future research is necessary to invest the trend further so that professional development designers can make informed decisions regarding the quality of instruction presented in lesson analysis resources, similar to CSRL. Future studies should investigate whether perceived quality of instruction influences teachers' evaluations of their own instruction, as findings suggest occurred while evaluating others' instruction. A post hoc analysis of the data to explore this question was not possible in this study, as a measurement of perceived quality of participants' own instruction (i.e., TQ Likert scale evaluations) was not collected. Finally, future studies should examine whether variance in perceived quality of instruction limit or enhance the development of analytic expertise.

Evaluating video-based cases of early reading instruction in a group setting. While this study examined practicing teachers' evaluations of instruction while engaged in a lesson analysis tool individually (as opposed to discussing evaluations as a group), more research is needed to further investigate the use of resources such as CSRL in group settings. Previous studies have examined the use of CSRL in different settings (in study groups and independently) (Rosaen et al., 2013; Vereb et al., 2015); findings from these studies suggest that participants both appreciated and benefited from their experience working with the cases in study group settings.

Future studies should closely examine participants' evaluations of early reading instruction, similarly to this study; however, participants would discuss their evaluations of the cases in a group setting. Of interest would be whether participants' analytic expertise developed differently while engaged in lesson analysis in a group setting compared to working on the case studies individually. Findings could speak to the affordances and limitations of evaluating case studies in a group setting and the skills, knowledge, and

dispositions necessary to analyze and discuss instruction in meaningful and collegial ways (Ball & Cohen, 1999).

Further, prior studies of lesson analysis tools used in group settings have prompted teachers to focus on student thinking, particularly in the area of mathematics (e.g., Santagata et al., 2007; Sherin & van Es, 2005; van Es & Sherin, 2008; 2010). The analytic framework presented in CSRL, the TQs, provides a somewhat broader lens for analysis. The TQs prompt teachers to consider the purpose and design of the lesson, methods of instruction, and issues of student engagement and participation. Therefore, future studies should examine the role the TQs play in group discussions of early reading instruction and whether teachers begin to discuss features of instruction in line with the dimensions of the TQs.

Instructional content of cases as influence on participants' teaching. This current study did not investigate whether participants' literacy instruction (Lesson 1 and Lesson 2) was influenced by the instructional content of the video cases. Future research should explore whether the CSRL cases concerning particular topics (such as character traits), seem to influence participants' instruction when the literacy content taught for Lesson 2 aligns with a CSRL case (e.g., a lesson on character traits). Research in this area would provide insight into whether lesson analysis tools, such as CSRL, not only influence analytic expertise, but pedagogical content knowledge as well.

Grounding aspects of instruction discussed in observable student behavior. Investigating whether participants grounded their evaluations of instruction in student behavior or student artifacts would be an important next step following this study. Understanding whether teachers take into consideration the aspects of instruction Hiebert

and others (2007) argue are important (e.g., student learning) before and after engaging in a video-based case approach to lesson analysis would be enlightening. Future research in this area would provide evidence to support Hiebert and others (2007) proposed framework and hypotheses that novice teachers who engage in systematic and guided lesson analysis can develop their analytic expertise.

Effects of lesson analysis on student learning. Finally, the design of this study did not examine whether or how analytic expertise impacts student learning. More research is needed to determine whether beginning teachers exhibiting characteristics of well-developed analytic expertise are able to provide effective reading instruction for students. Future studies of this kind may provide insight into whether beginning teachers' practice is impacted from this type of support (development of analytic expertise) and whether student learning is positively influenced as a result.

Appendix A: Recruitment Email

Dear [teacher's name]:

I am a doctoral student at the University of Michigan, School of Education, and my dissertation study seeks to investigate how viewing and analyzing one's own instruction and that of others' impacts one's own evaluation of early reading instruction. This would involve completing four cases over the summer and video-taping your instruction once in May and once in late September. Many teachers find the experience of viewing their own and others' instruction and reflecting on practice to be an extremely valuable experience. In appreciation you will receive $100, as well as a certificate of completion.

If this study sounds of interest to you, please reply to this email so we can discuss the details of the study further.

Sincerely,

Emily Mihocko
PhD Candidate
University of Michigan
School of Education

Appendix B: Screenshot of Recruitment Flyer

Professional Development Research Study Details

CSRL is a promising approach to professional development for teachers of early reading. The study investigates the use of video records of practice for professional learning purposes in the area of early reading instruction. The results should provide direction for further development and use of similar video-based professional development.

Who is the study designed for?

The study is designed for kindergarten through 4th grade teachers who have taught less than 8 years, and who do not have a masters in education curriculum and/or instruction

What are the activities teachers will be involved in?

- In the fall, teachers will record one lesson of their own teaching, evaluate their instruction, and discuss this experience (total time 1-2 hours) (complete by end of November)
- Then teachers will evaluate four CSRL case studies (1-2 hours per case study) and discuss their experience (complete by end of January)
- After the case studies have been completed, teachers will re-evaluate the lesson they already taught and discuss their evaluation (1-2 hours)
- Finally, teachers will record a final lesson of their own teaching, evaluate their instruction, and discuss this experience (total time 1-2 hours) (complete by end of February)

What are the benefits for teachers?

- Teachers will have the opportunity to reflect on features of effective reading instruction
- Teachers will receive a $100 Visa gift card as a thank you for their time working with CSRL
- Teachers will also receive a certificate of completion to document professional development hours

Further questions?

- **Please contact Emily Mihocko-Bowling at (810) 923-5508 or send an email to emihocko@umich.edu**

Appendix C: Teacher Consent Letter

April, 2013

Dear Teacher,

This letter is an invitation to participate in a dissertation study of the evaluation of video-taped instruction. This study seeks to investigate how viewing and analyzing one's own instruction and that of others impacts one's own evaluation early reading instruction. This study will entail videotaping and discussing two lessons of one's own early reading instruction. This study has implications for future research that seeks to address the need for evidence that links professional learning opportunities that support teachers in analyzing their own and others' instruction through the use of video and analytic frameworks.

What is the purpose and design of this study?
Specifically, this study seeks to investigate if and how the use of a teacher's own and others' video-taped instruction leads to changes in one's own evaluation of practice. This study will be beneficial in the development of future studies in which teacher analysis of video-taped reading instruction is utilized.

What does participation involve?
If you agree to participate in this study, you will be asked to choose two reading lessons of your own instruction to be video-taped (one in May and one in mid to late September). You will then be asked to view and evaluate your own instruction. Within one week of viewing and evaluating your instruction, a follow up interview will be conducted. The first interview will take approximately 30 minutes and the second interview will take approximately 45 minutes. These interviews will be audio-recorded and transcribed. Anything that is video or audio recorded, upon request, can be deleted and will not be used in the study.

In addition, there will four cases that will be completed over the summer (between June and August). Each case should take approximately 1 to 2 hours to complete. One of the lessons within a case will need to be completed in the presence of the researcher to gain more information about how participants typically complete case lessons.

Are there benefits to participating in the study?
Often teachers find the experience of having their own instruction video-taped valuable, particularly when they are given the opportunity to reflect more extensively on their own and others' instruction. Teachers often find this experience to be beneficial in improving

their own instruction. Additionally, benefits include future improvement to professional learning opportunities and the ways in which these are studied.

Are there any possible risks for me or my students?
There are no known or anticipated risks associated with participation in this study. The data collected will be labeled with identification numbers so as to protect your identity. The results of this study may be published but will not include any information that would identify you. The collected videotaped instruction and audio-taped interviews will be saved for a few years, as they may inform other publications following this dissertation study. After this point, they will be destroyed.

There are some reasons why people other than the researchers may need to see information you provided as part of the study. This includes organizations responsible for making sure the research is done safely and properly, including the University of Michigan, government offices or the IRB. Participating in this study is completely voluntary. Even if you decide to participate now, you may change your mind and stop at any time.

If you have questions about your rights as a research participant, or wish to obtain information, ask questions or discuss any concerns about this study with someone other than the researcher(s), please contact the University of Michigan Health Sciences and Behavioral Sciences Institutional Review Board, 540 E Liberty St., Ste 202, Ann Arbor, MI 48104-2210, (734) 936-0933 **[or toll free, (866) 936-0933]**, irbhsbs@umich.edu

By signing this document, you are agreeing to be in the study. Please keep the attached extra copy of this document for your records, while the other copy will be kept with the study records. Be sure that questions you have about the study have been answered and that you understand what you are being asked to do. You may contact the researcher if you think of a question later. If you have questions about this research, you may contact Emily Mihocko at (810) 923-5508 or email emihocko@umich.edu.

Sincerely,

Principal Investigator:
Emily Mihocko
PhD Candidate
University of Michigan
School of Education

Faculty Advisor:
Gina Cervetti, PhD
Professor, Educational Studies

Study title: Developing Early career Teachers' Analytic Expertise through Viewing and Analyzing Other Teachers' Video Records of Practice
Principal Investigator: Emily Mihocko
Faculty Advisor: Gina Cervetti

I am willing to participate in this study, recognizing that the purpose is to explore how and to what extent viewing and reflecting on your own video-taped lesson impacts one's own evaluation of early reading instruction. I am willing to have two (15-20 minute long) lessons video-taped (one in May, one in mid-September). I agree to have two follow-up interviews, during which I will be asked to discuss and evaluate my own instruction. I understand that these interviews will be audio-recorded. Additionally, I agree to complete four cases and one think-aloud.

_____ _____
Signature and date

Appendix D: Parent Informed Consent Letter

Dear Parent or Guardian:

I am carrying out a study for the purpose of investigating teachers' learning while involved in a video-based professional development. To do this I will video-tape one literacy lesson in your child's classroom during the month of May. These videotaped lessons will be viewed by your child's teacher and me for the purpose of this study.

The focus of this study is on the teacher, but because the videotaping will take place during regular reading instruction, students will participate in the lessons. When I videotape a lesson, my camera will be focused on the teacher, not on the students. I hope that you are willing to have your son/daughter be part of a videotaped reading lesson in order to capture a typical reading lesson in your child's classroom.

If you do not want to have your son/daughter in the video during the taping session, please sign the form on the next page and return it to your son/daughter's teacher. On the day of the videotaping, I will work with your son or daughter's teacher to make sure that he/she is not involved in activities that I am videotaping but is still receiving appropriate literacy instruction.

Please let me know if you have any questions. You can call me at (810) 923 5508 or send me an email at emihocko@umich.edu.

Sincerely,

Emily Mihocko
PhD Candidate
University of Michigan
School of Education

Study title: Developing Early Career Teachers' Analytic Expertise through Viewing and Analyzing Other Teachers' Video Records of Practice

Principal investigator: Emily Mihocko

I am NOT willing to have my son or daughter participate in a videotaped reading lesson taught by his/her teacher for this study.

Parent name (printed):_____

Parent signature:_____

Child's name:_____
_____

School:_____

Grade:_____

Date:_____

Appendix E: Semi-structured Interview Protocol

This interview protocol is a guide and is subject to change in response to teacher responses.

Name of teacher:
School:
Date:
Time of interview:
Interviewer:

Say: Thank you for making time for this interview. Today I am interested in learning about your experience analyzing your own instruction. Also, I want to remind you that this interview will be audio-recorded and answering any of these questions is completely voluntary. This interview will not last more than 45 minutes.

1. What guided your thinking in choosing this lesson for the Lesson 1 evaluation?
2. When you received the DVD of your lesson, can you tell me about how you viewed and evaluated it?
    a. How many times did you watch it?
    b. Did you replay parts?
    c. Did you take notes?
3. Please discuss three of the most salient (i.e., critical) aspects of your instruction, in terms of student learning, you found to be effective?
    a. Why were these effective?
    b. Why were these most salient?
4. Please discuss three of the most salient (critical) aspects of your instruction, in terms of student learning, you found needing to be improved upon.
    a. Why were these areas in need of improvement?
    b. Why do you consider these the most salient/critical?
5. Is there anything that may have influenced your evaluation?
    a. Any college/university courses?
6. How about professional learning opportunities you are involved in currently (or in the past) at your school?
    a. What are these?
    b. What do these entail?
    c. Do you think these may have influenced your evaluation in any way? Why or why not

(These questions are for the final interview only)

7. Do you think your work with the CSRL video-taped instruction influenced how you think about your own early reading instruction or that of others?
    a. If so, how?
    b. If not, why not?
8. Ok, let's take a step, back from this lesson, and talk about your view of literacy instruction. How do you see your role as the classroom teacher? What is your perspective on literacy instruction?

Appendix F: Re-evaluation Interview Protocol

1. Prior to this session you were asked to reevaluate your lesson from Lesson 1. Is there anything you want to add or change about your original evaluation?
2. If so, please discuss what you think are the new most salient aspects of your instruction, in terms of student learning, you found to be effective?
    a. Why were these effective?
    b. Why were these most salient?
3. Please discuss what you think are the new most salient aspects of your instruction, in terms of student learning, you found needing to be improved upon.
    a. Why were these areas in need of improvement?
    b. Why do you consider these the most salient?
4. Is there anything that may have influenced your re-evaluation?
    a. Any college/university courses?
5. How about professional learning opportunities you are involved in currently (or in the past) at your school?
    a. What are these?
    b. What do these entail?
    c. Do you think these may have influenced your evaluation in any way? Why or why not?
6. When you received the DVD of your lesson, can you tell me about how you viewed and evaluated it?
    a. How many times did you watch it?
    b. Did you replay parts?
    c. Did you take notes?

Appendix G: Excerpt from TQ Response Document

Case 1
Leena Zeeban Builds ELL Students' Language and Literacy

Lesson 1: Building Vocabulary and Background Knowledge (video length 14:51)
Thinking Questions
Lesson Purpose and Design
Please select (one) box by highlighting It

Was the lesson designed to promote students' learning?

Yes No
□ □ □ □ □ □

Did the teacher help students understand what they would be learning and why?

Yes No
□ □ □ □ □ □

Was the lesson design appropriate, given what you know about the students' literacy capabilities and background knowledge?

Yes No
□ □ □ □ □ □

Did the lesson have a coherent organization? (That is, did the parts of the lesson flow and fit together well?)

Yes No
□ □ □ □ □ □

Overall, was the lesson effectively designed to achieve a literacy purpose meaningful to the students?

Yes No
□ □ □ □ □ □

RESPOND HERE:
With the purpose and design of the lesson in mind, please comment on a few effective features of lesson 1.

With the purpose and design of the lesson in mind, please offer a few suggestions for ways to improve lesson 1.

Appendix H: Think-Aloud Protocol

1. Set up camera behind the participant
2. Explain to the participant that they will need to verbalize what they are thinking as they complete the lesson. – say: *I want to learn more about what you notice and how you think as you are viewing a video, so I am going to ask you to share your thinking*. *Sometimes you may have to describe what you are thinking—if what you are thinking would not make sense to someone else*
3. Ask for clarification if there is something that does not make sense during the think-aloud (e.g. ask why they responded the way they did to an open-ended question)

Appendix I: Planning and Reflection Interview Protocols

Planning Interview Protocol

1. Can you tell me about your lesson? What is the purpose?
2. How does this fit in with your curriculum (or where you are in the school year)?
3. How did you plan for it?
4. What materials will you need?

Reflection Interview Protocol

1. How do you think the lesson went?
2. Were there any instances in the moment where you veered from your lesson plan? Explain why. What were you thinking in the moment of those modifications?
3. How will you follow-up this lesson with your students?
4. Is there anything you would change about your lesson if you had the opportunity to teach it again?

Appendix J: Video Viewing Prompt

1. View video (planning, enactment and reflection) within one week of taping
2. Record aspects of your instruction you think are effective
3. Record aspects of your instruction you think need to be improved upon
4. For the interview, be prepared to share the three most salient aspects of your instruction you think need to be improved upon and the three most salient aspects of your instruction you think were effective and why you think these instructional events are either effective or in need of improvement

Appendix K: Instructions and Reminders

(given to participants for working with CSRL cases)

Reminders:

- Be careful to ***cut and paste*** the username and password from this email as you will get locked out the website if you enter the wrong username and password five times in a row
- Please ***go in the order*** of how the cases and lessons are listed on the website. For example- complete lesson 1 before working on lesson 2 and so on. The practice case is optional.
- When you first open a lesson, it helps to ***wait a few minute***s before playing the video so that it has time to load. For example, it may help the video to load if you read through the context and the about the lesson before playing the video
- Remember, to respond to the questions on the website you must ***respond in the attached document.*** You cannot save your responses on the website. Others have said they just have the attached Word doc open along side the website and toggle back and forth. Or if you prefer you can print it off
- I am interested in how you analyze the CSRL cases , therefore if you choose to watch or read the specialists comments, please ***do not go back and change*** what you have written based on their comments.

Appendix L: Definitions and examples of Codes
(Stage 1 analysis)

Code	Definition	Exemplar
feature	statement identifying the aspect of instruction being evaluated (could be in the form of a suggestion)	But I think if I were to do it again I would maybe shorten the piece that I wanted them to read and then give a little more time at the end for them to discuss these ideas, to discuss their paraphrasing and reflect on how it helped them understand the text better. (Ms. Ward_re-eval_needs_84-95)
reason	Explains why the feature is important for student learning (may or may not state the why s "important for student learning"—may have to be assumed because this is what is asked in the interview question) Use this code only for when participant is giving reasoning for why feature is effective—not coded for other types of reasons	I tried to not, sometimes I just talk and talk and talk (laughs) and that's something I feel like I'm really working on in my teaching is just saying what I mean and really trying to talk less so that when I do that they're like tuned in and listening because it's gonna be important. [Ms. Ward_Lesson2_eff_36-44]
principles of teaching and learning	The participant tends to make statements in generalities—like students in general need X, and if you do	So it's like you know every moment that time is, I think I value their time and I value my own time and I think that that demonstrates to them that their time is valuable as well. [Ms. Ward_Lesson2_eff_57-64;75-92]

	Y-then students tend to … Principles are stated in a way that discusses issues of teaching and learning and student learning – as generalizable- rather than only applicable to one specific student or group	So I think that helped them because when you um, I think what was effective about that was that if you give a task that students- even if it's something that you worked on- if it's not the focus of your lesson you can't really judge whether or not they learned something and they also don't' have the kind of potential to learn from the task if the task isn't like an extension of your objective. [Ms. Young_re-eval_eff_202-217]
specific to their own students	States reason for why the features discussed are important for student learning in ways only applicable to one specific student or group of students	and it made it more interesting for them I think. [Ms. Thompson_Lesson1_eff_45]

Appendix M: Excerpt from TQ Alignment Table

General coding process

1) read through entire chunk of transcript
2) have basic sense of feature (take into consideration all that is said like examples, descriptions, elaborations, reason, etc. to get all relevant information)
3) then read through TQs below—noting any and all codes that fit the feature discussed
4) thinking about the gist of the feature—in terms of the TQ dimension (ask: are they discussing LPD, instruction, or SEP?) then move specifically into the actual TQs for that dimension
5) –for example, only code 1A, if the person actually discusses how the design of the lesson influenced/promoted/enhanced student learning (e.g. the reading workshop model was effective for students to…)
6) eliminate any codes that are more general. code to be as specific as possible, use the more specific and accurate code over more general codes (e.g. keep 2c vs 2A when possible)
6) Double coding should be rare, only in cases where a participant really has more than one point in a feature
7) if no TQ codes apply, code as a 4 and write a possible code (what it is that they are discussing) (e.g. "record keeping strategy for assessment and planning purposes")

Dimension	Thinking Question	Example
1 Lesson Purpose and Design	1A Does the design of the lesson promote student learning	Ok. I think the workshop model in general is super effective because of how it's a shortened lesson that gets right to a teaching point with a strong connection and then it allows for a lot of independent time for students to work. And then during that independent time I can be meeting and doing small teaching- whether it's in my small group or in the conferences that I did while you were there. (Ms. Cooper_L1_lines 80-85)
	1B Did the Teacher help students understand	So some things that I noticed that I thought um, you know were positives in kinda that sense were that um, well in planning my lesson that it was directly

	what they would be learning and why Note: This seems to have a focus on the teacher stating the purpose AND why of the lesson at the BEGINNING – "students understand what they WOULD be learning"	connected to prior taught skills and that when I met with my group I connected it to that…. So you know they had a clear purpose for learning when they came in here that that's what they were gonna be doing and how it connected to what we'd been doing before. (Ms. Ward_L2_lines 30-36)
	1C Is the Design of the lesson appropriate-given what is known about students' lit capabilities and background knowledge	So I think the examples that I chose and the number of examples were effective because they were accessible to them. You know? (Ms. Thompson_L2_line 70)
	1D Do students have opportunities to apply what they learned in reading and/or writing? (for example, finding sources of information to read about a topic)	And then also the chance for them to work in groups immediately and practice it before they had to go off independently. (Ms. Thompson_L1_line 41)
	1E Was the lesson coherently organized	The language I used and the question on the board at the end that they had to answer was very similar to the language I said at the beginning. (Ms. Young_L1_line 84)

Appendix N: Excerpt from Reading Specialists Alignment Table

Ms. Cooper Effective Features - none aligned	Reading Specialist 1	Reading Specialists 2
-structure of mini-lesson, small group work and share -clear workshop model -students were engaged and participating -loved that they sit in circle for share -students in the small group engaged in instructional level texts, focused and working well together	*The teacher appeared to have a positive relationship with the students and had a good rapport with them. She drew on their prior knowledge and honored their responses, often by restating and extending them. She seemed to understand the needs of her English language learners and provided a few additional supports, such as a word bank on the side of her KWL chart to help with new vocabulary.*	*The teacher obliviously has developed good relationships with her students. She was careful to make sure students understood the meanings of new vocabulary, using several examples to explain the meanings of new words. She is sensitive to her ESL students' needs and able to accommodate bilingually when necessary. She wanted to draw students into the learning by helping them draw upon prior knowledge and make personal connections. Having the students make predictions by asking them to think about what they would be learning in the text was an effective way to get them thinking about not only the content, but the structure of the text they would be reading. The use of the vocabulary list was a strong way to give the students repeated exposure to words that may be new to these ESL learners.*

*Matching colors of highlighted text indicated cross reading specialists indicates overlap/agreement of features discussed

Appendix O: Examples of Coding Tables

Provides reasons

	Lesson 1 (10 feat)	Re-eval (6 feat)	Lesson 2 (6 feat)
Eff	9:6	4:3	3:3
Needs	3:4	3:3	4:3
Total	12:10	7:6	7:6

types of reasons

	Lesson 1 (10 feat)	Re-eval (6)	Lesson 2 (6)
Effective	6 spec; 3 principles	4 principles	2 spec; 1 principle
Needs	2 spec; 1 principle	3 spec	2 spec; 2 principles
Total	8 spec; 4 principles (33%)	3 spec; 4 principles (57%)	4 spec; 3 principles (43%)

Appendix P: Examples of Cross-case Coding Tables

Providing reasons

	Lesson 1 (10 feat)	Re-eval (17 feat)	Lesson 2 (3 feat)
Ms. Young	9:10 (90%)	18:17 (106%)	3:3 (100%)
Ms. Cooper	17/12 141%	9/7 129%	8/7 114%
Ms. Thompson	3/5 60%	8/8 100%	3/4 75%
Ms. Ward	12:10 (120)	7:6 (117)	7:6 (117)

Types of reasons given

	Lesson 1	Re-eval	Lesson 2
Ms. Cooper	5 spec 12 principles 12/17 (71%)	4 spec 5 principles 5/9 (56)%	2 spec 6 principles 6/9 (75%)
Ms. Thompson	3 spec; 0 principles 0/3 0 %	7 spec; 1 principles 1/8 13%	3 spec; 0 principles 0/3 (0%)
Ms. Young	8 spec; 1 principle 1/9 (10%)	13 spec; 5 principles 5/18 (29%)	1 spec; 2 principles 2/3 (67%)
Ms. Ward	8 spec; 4 principles (33%)	3 spec; 4 principles (57%)	4 spec; 3 principles (43%)

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