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Fourth Grade Literature Blogging Versus Hand-Written Response: Effects on Motivation, Classroom Community, and Reading Comprehension

Adrienne Monaghan

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FOURTH GRADE LITERATURE BLOGGING VERSUS HAND-WRITTEN RESPONSE:
EFFECTS ON MOTIVATION, CLASSROOM COMMUNITY,
AND READING COMPREHENSION

A Dissertation

Submitted to the School of Graduate Studies and Research

in Partial Fulfillment of the

Requirements for the Degree

Doctor of Education

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This study compared the reading motivation, sense of classroom community, and reading comprehension of fourth grade students who responded to literature circle prompts on a blog to those students who responded traditionally, using pencil and paper. A sequential, mixed-methods study was employed in which surveys, measuring reading motivation and classroom community, were administered before reading an assigned novel and beginning literature circle work and again after reading the text and completing literature circle responses. Additionally, post-test comprehension scores were collected from all participants, and teacher and student interviews were conducted at the conclusion of the study.

The quantitative results of the study showed no significant differences in reading motivation, sense of classroom community, or reading comprehension between the blogging and traditional response groups. Likewise, there were no significant differences in scores representative of reading motivation and sense of classroom community from the beginning of the study to the end of the study for either response group. The teacher and student interviews, however, suggested that reading motivation of the blogging group may have been positively affected as students took initiative to complete literature circle work outside of school even though it had not been formally assigned. Results from the focus group interviews also suggested that a sense of classroom community was developed among all participants and that the sense of classroom community among the blogging group members was particularly strong. Moreover, interview results showed that critical thinking may have increased for the blogging

group members as they progressed through the study. These findings, along with overwhelmingly positive comments from the blogging participants, suggested that further studies related to blogging in response to literature are of interest and that academic blogging is a valuable teaching tool.

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CHAPTER I

INTRODUCTION

Reading achievement has been closely examined in recent years due to the accountability demands set forth in the No Child Left Behind (NCLB) legislation of 2001 and subsequent standards initiatives, including the Common Core State Standards (CCSS) introduced in 2010. As schools and educators take on the responsibility of attaining adequate yearly progress and transitioning to CCSS in education, while preparing students to be successful 21st century citizens, quality literacy programs that engage students and maximize reading potential are of particular interest (Ercegovac, 2012; Hutchison & Colwell, 2014; Leu, Forzani, Trimbrell, & Maykel, 2015).

The Common Core State Standards place a significant emphasis on the use of technology to promote literacy (CCSS, 2010; Hutchison & Colwell, 2014). The use of digital technology is not a separate strand but is instead integrated into the English Language Arts (ELA) Standards at the intermediate grade level; however, teachers may not be aware of the extent to which technology integration is expected in ELA instruction. Moreover, new technologies for literacy learning are rapidly emerging and are essentially unlimited in number. Therefore, it can be challenging for educators to differentiate between the technology-tools that support literacy growth and those tools that waste valuable instructional time (Leu et al., 2015). For these reasons, examining the potential value of technology-tools to be used in the classroom to support reading instruction is of interest.

When selecting technology-tools to facilitate meaningful reading experiences, recent research regarding technology integration in the ELA curriculum suggests that students be encouraged to create and comprehend multimodal texts, collaborate, using digital tools, and use

technology to share information as well as solicit feedback (Hutchison & Colwell, 2014). Blogging in response to literature offers opportunities for students to exercise such skills. Additionally, the value of blogging about texts should be considered, as instruction organized around learning communities that promote extended discussion of material read has proven successful (Johnson, Johnson, & Roseth, 2010; Langer, 2014; Willis, 2007).

Blogs offer a form of personal publishing that can serve to connect students (Halcic, Lee, Paulus, & Spence, 2010). As students record their thoughts in the blogging forum, others can respond to their entries by commenting on initial posts (Ahmad & Lutters, 2011). Such an interactive process could benefit children in the intermediate grades by generating excitement about and building understanding of text through participation in online literature discussions (Batchelor, 2014; Johnson, Johnson, & Roseth, 2010).

By engaging in digital response to novels, students are encouraged to exercise critical thinking skills in creating, reading, and responding to blog entries while receiving valuable feedback through the online forum. The collaborative nature of these tasks offers opportunities for collective knowledge building in which the group's collective knowledge, as well as individual understanding, is further developed as a result of working together (Bereiter, 2002). Throughout the process, students have the opportunity to evaluate and integrate information from multiple sources as they construct meaning of the material (Hutchison & Colwell, 2014; Zawilinski, 2009). As a result, student achievement may increase through working together in the blogging forum (Barber, King, & Buchanan, 2015; Swanson & Legutko, 2008).

The collaborative nature of blogging in response to literature should be viewed in relation to the theories of social constructivism and transactional/reader response. Vygotsky's social constructivist theory asserts that children's knowledge, ideas, values, and attitudes develop

through interactions with others (Tracey & Morrow, 2006). Rosenblatt's reader response theory states that each reader's interaction with the text is unique and based on background information brought to the reading experience (Albaugh, 2013). Because blogging enables students to exchange ideas and share experiences, blogs can be an ideal forum for social constructivist learning in which transactional reader response is supported (Ferndig & Trammell, 2004). Reader response activities in which students work together to build understanding in a constructivist learning environment also have the potential to improve reading comprehension and result in increased reading achievement (Johnson et al., 2010; Langer, 2014).

Statement of the Problem

The debate over the best way to teach reading is not new. In fact, it is a question that has been argued throughout much of the past century (Cromwell, 1997; Gillis, 2014; Rennie, 2016; Sherman, 2009). Despite constant, careful consideration regarding reading instruction, however, lack of the skills required to be successful leaves many children struggling to read and comprehend (Biancarosa & Snow, 2004; Snow, Burns, & Griffin, 1998). The lack of required skills is particularly true of intermediate grade students as researchers have noted concerns about the reading achievement of this group of learners (Lewis, James, Hancock, & Hill-Jackson, 2008; Pitcher, Albright, & DeLaney, 2007). Reports from the National Center for Educational Statistics (NCES, 2009, 2011) and the National Assessment of Educational Progress (NAEP, 2005) have validated these concerns in that intermediate grade students demonstrate generally low reading achievement scores with few students score in the advanced category (Donahue, Daane, & Grigg, 2003; Lewis et al., 2008). Such poor outcomes are troubling, as reading and writing skills are required for academic performance in all content areas. The results indicate an

urgency to create solutions for improving reading achievement in the intermediate grades (Biancarosa & Snow, 2004; Little, McCoach, & Reis, 2014; Marston, 2001).

One possible solution is increased technology integration in the reading curriculum. Ivey and Broaddus (2001) noted a mismatch between students' needs and preferences and the instructional opportunities presented to intermediate grade learners. Therefore, technology integration in the language arts curriculum holds promise, as it serves as a means to make school more relevant and engaging for students (Duncan, 2010).

While technology-supported learning environments are generally thought to stimulate students to learn in an active, relevant, and meaningful manner, there is little empirical evidence in the literature to support such a claim (Alduraby & Liu, 2014; Ayudmir & Ozturk, 2012; Duncan, 2010; Vasniadou, De Corte, & Mandl, 1994). Based on past research regarding reading achievement, the effects of blogging in relation to reading motivation, sense of classroom community, and reading comprehension are of interest. Currently, there is little research related to blogging in response to a reading assignment and the ways in which it may affect reading motivation, sense of classroom community, and reading comprehension, particularly in the intermediate grades.

Purpose

The purpose of this study was to examine the effects of blogging in response to literature on reading motivation, sense of classroom community, and reading comprehension among fourth grade students. Student motivation in relation to the reading assignment, sense of community among classmates, and overall reading comprehension of students who completed literature circle responses in the blogging forum, as opposed to responding traditionally using pencil and paper, were considered. Once the comparisons were made, conclusions were drawn about

technology integration in the language arts curriculum in the intermediate grades. Results of this study were communicated to educators and may be applied in other settings to allow students to maximize their reading comprehension potential.

Blogging and Reading Motivation

Motivation is central to all stages of reading development. Gambrell (2010) noted that without motivation to read, students will not reach their full potential even if they receive effective instruction in the key areas of literacy. One way to increase student motivation in reading is to embed instruction in authentic and relevant experiences (Blanton, Wood & Taylor, 2007; Cunningham & Allington, 2015; Dennis, 2008). Such experiences include literacy tasks that result in the construction of new meaning and require ownership on the part of the learner (Edelsky, 2006). Purcell-Gates (2002) further noted that authentic tasks should involve purposeful and functional experiences that engage students.

By providing purposeful and engaging tasks related to a specific text, educators can spark situational interest in reading. This interest is important, as situational interest in a specific book has been found to lead to longer-term intrinsic motivation for reading in general (Guthrie, Hoa, Wigfield, Tonks & Perencevich, 2006). This finding may be because students who become motivated to read for a specific purpose approach reading in a more positive manner, which can result in increased overall reading (Ecklund & Lamon, 2008). The increased reading by students ultimately results in greater achievement (Gallagher, 2010). Therefore, the effects of blogging about text on reading motivation are important to consider.

Blogging in response to literature promotes situational interest in reading as it offers authentic opportunities for students to select from a range of tools to analyze and evaluate texts, organize their thoughts, publish their work, and receive feedback (Brown, Cummins, & Sayers,

2007). Students are further motivated to become part of the learning process as ideas and information are posted in authentic ways in the online forum. The wider audience provided through the digital learning environment gives student ideas validity, resulting in work that is more complete, robust, and thorough (Hutchison & Colwell, 2014; Zuger, 2010). In the current study, one goal was to determine whether digital writing in response to literature did indeed create situational interest for intermediate grade students and whether it was great enough to affect overall reading motivation.

Blogging and Sense of Classroom Community

A second goal of the current study was to determine the extent to which students' sense of classroom community was affected by responding to literature in a blogging forum. Digital discourse, implemented through the use of blogs, wikis, and other online collaboration tools, has been found to be an effective means of promoting student engagement and achievement in reading (Duncan, 2010; Hutchison & Colwell, 2014; Perry 1999; Suhr, Hernandez, Grimes & Warschauer, 2010; Yancy, 2009). Such findings may be attributed to the application of many elements supported by Vygotsky's social constructivist theory, which asserts that interaction with others helps to shape students' knowledge and understanding (Tracey & Morrow, 2006). Blogging offers opportunities for socialization because peer collaboration, reciprocal teaching, and scaffolding naturally occur as students engage in online discourse. This collaboration is due to the conversational and relational nature of such tasks (Cambourne, 1995; Grisham & Wolsey, 2006; Guthrie & Davis, 2003; Tarasiuk, 2010).

Peer collaboration ensures that students are actively constructing meaning in the learning process. As students discuss the content, they are expected to take responsibility for their

learning and contribute to the learning of others. In doing so, ideas are clarified, and shared social interactions serve an instructional function (Schunk, 2008).

According to Ertmer and Ottenbreit-Leftwich (2010), teachers should develop students' abilities to work collaboratively and take control of their learning in an instructional-and-communication-technology rich (ICT) environment. Digital response provides one such opportunity as students engage in conversations about text and refine their thinking while enhancing social connections through online discussion (Zawilinski, 2009). Through such conversations, partnerships are formed and students feel valued for their unique perspective and experiences (Kervin & Mantei, 2010). In the current study, the possibility of an increased sense of classroom community was important to consider as collaboration promotes student engagement with the literature and response.

Walsh, Asha, and Springer (2007) further noted that online collaboration allows for increased understanding as well. The increase in understanding may be because students engage in language modes simultaneously while interacting with the text, their peers, and technology. As students work together in an online forum, opportunities for critical thinking are presented.

Blogging and Reading Comprehension

A third goal of the current study was to determine whether responding to literature in a blogging forum resulted in increased critical thinking and reading comprehension. The process of reading a text, responding in writing, and following up with discussion is often referred to as reader response. Reader response activities are based on Louise Rosenblatt's (1978) transactional/reader response theory. According to Tracey and Morrow (2006), Rosenblatt's theory states that "all readers have individualized reading experiences because each reader has unique background schemas" (p. 55). Therefore, each reader's experience with the text is unique

because it is based on the interaction between background knowledge brought to the text and the reading content. This perspective is significant because it empowers readers to comprehend the text based on their personal experiences (Albaugh, 2013).

As students interact with the text and with their peers through digital writing and response, they become accountable to a wide audience. Ellison and Yuehua (2008) noted that this sense of accountability encourages students to read texts and construct their thoughts more carefully. Quality of responses also improves as students engage in blogging because analysis, synthesis, and evaluation of information are required to gather and respond to information from multiple sources (Leu et al., 2015; Zawilinski, 2009). Students further exercise higher-order thinking skills in evaluating appropriate information and responses to publish.

Critical thinking skills can be applied in the classroom as students engage in blogging related to common literature. In doing so, they have an opportunity to mutually construct meaning and clarify understanding by reflecting on the reading, offering personal points of view, considering the perspectives of others, and ultimately synthesizing their thinking. Throughout this process, students are able to read and respond to various interpretations of texts, investigate probing questions, communicate personal connections, and learn from one another. These opportunities benefit literacy learning because students are more likely to experience reading growth as they engage in critical thinking while building understanding of the text (Peterson & Taylor, 2012; Taylor, Pearson, Peterson, & Rodriguez, 2003). In the current study, the third goal was to determine whether the critical thinking skills, supported through the blogging forum, resulted in greater reading comprehension and ultimately, greater achievement.

Research Questions

To determine if reading motivation, sense of classroom community, and reading comprehension were influenced by blogging in response to literature in the intermediate grades, the following research questions were considered:

Question 1: How is reading motivation affected as fourth grade students respond to an assigned text in a blogging forum as opposed to responding traditionally, using pencil and paper?

Question 2: How is the sense of classroom community affected as fourth grade students respond to an assigned reading in a blogging forum as opposed to responding traditionally, using pencil and paper?

Question 3: What is the effect on post-test comprehension scores of making on-going literature responses in a blogging forum, rather than traditionally using pencil and paper, throughout the reading?

Hypotheses

In seeking to determine if blogging in response to literature generated increased motivation for reading an assigned text, it was hypothesized that the authentic nature of the task would motivate the learner to complete the reading. This notion is supported by Cunningham and Allington (2015), who asserted that motivation, as it pertains to literacy, is increased as instruction is embedded in authentic and relevant experiences. The digital learning environment provides such authenticity as students have the opportunity to select from a range of tools to analyze texts, organize thoughts, publish work, and receive feedback (Brown, Cummins, & Sayers, 2007). Therefore, students become more engaged in the work as they are able to make meaning of the content in ways that are most relevant to them.

In a similar study, Ray (2014) noted that while blogging, in response to literature, did not significantly impact students' motivation to read scores, follow-up interviews suggested there was increased interest from the online group. Students who responded to literature through a blogging platform noted increases in anticipation for the task, meaningful conversations with others, and overall interest, while students who responded in a notebook did not report increases in these areas. Ray's (2014) research supported the hypothesis that students who completed the literature response online would experience increased interest in the reading assignment resulting in increased reading motivation.

The sense of classroom community gained through online discussions was also of interest in this study. As students responded to the assigned text in the blogging forum, they had access to their peers' and teacher's comments on an ongoing basis. Therefore, it was hypothesized that the consistency and transparency of thoughts exchanged through blogging would lead to a greater sense of classroom community among the students. This hypothesis was supported by Hsu and Wang (2011), who noted that students who responded through blogs rather than in the traditional classroom setting reported higher levels of interaction with their classmates. Such interactions are valuable in that students feel supported in their learning and build meaning of the content through conversations with others (Barber, King & Buchanan, 2015; Ivey & Broaddus, 2001; Purcell-Gates, McIntyre, & Freppon, 1995).

Previous research by Franklin-Matkowski (2009) suggested that students who blogged about literature felt open and willing to share their writing. In this qualitative study, anecdotal evidence suggested that as secondary language arts students became more open to sharing their writing in the online forum, the sense of community was strengthened. This research supported

the hypothesis that students who responded to literature in the online forum would experience an increased sense of classroom community.

The overall reading comprehension achieved by students when responding to text in an online forum, as compared to responding traditionally with pencil and paper, was also of interest. Critical thinking skills can be applied in the classroom when students engage in blogging to respond to common literature (Albaugh, 2013). Therefore, it was hypothesized that the digital discourse related to the text would result in greater understanding and increased comprehension scores. In the blogging forum, students had an opportunity to mutually construct meaning and clarify understanding by reflecting on the reading, offering personal points of view, considering the differing perspectives of others, and ultimately synthesizing their thinking. Throughout this process, students were able to read and respond to various interpretations of text, investigate probing questions, communicate personal connections, and learn from one another (Leu et al., 2015; Zawilinski, 2009). This process benefits literacy learning as students are more likely to experience reading growth as they engage in critical thinking while building understanding of the text (Peterson & Taylor, 2012; Taylor et al., 2003). Research suggesting that blogging facilitates critical thinking supported the hypothesis that students who completed the literature response online would experience increased reading comprehension.

Definitions of Terms

In considering the value of blogging in response to literature as opposed to responding traditionally, using pencil and paper, the following operational definitions were used:

Digital Writing and Response: Digital discourse is a means of interfacing with ideas and with the world, a mode of thinking and expressing in an online forum (DeVoss, Eidman-Aadahl & Hicks, 2010).

Blog/Blogging Forum: “Essentially a form of personal publishing, the blog is a text-based online environment which allows for embedding links to other online resources and in which the author’s posts appear in review chronological order” (Halcic, 2010, p. 206).

Reading Motivation: Motivation is a collection of beliefs, values, needs and goals individuals have. These beliefs often encourage individuals to stay motivated (Guthrie et al., 2006).

Classroom Community: Sense of classroom community is “a feeling that members have of belonging, a feeling that members matter to one another and to the group, that they have duties and obligations to each other and to the school and that they possess shared expectations that member’s educational needs will be met through their commitment to shared learning goals” (Rovai, 2002, p. 321).

Reading Comprehension: “A complex activity that requires the reader (in this case, the student) to call on the coordination of cognitive, regulatory, linguistic, and text-specific processes, including decoding of text, which are developing over time and that have reciprocal and interacting bootstrapping effects on one another” (Connor et al., 2014, p. 380).

Traditional Method of Literature Response: In-school literacies are reading and writing taught in a traditional school format with books, paper, and pencils (Hull & Schultz, 2002).

Literature Response: Most reader response formats in school emphasize writing, usually in the form of journals (Spiegel, 1998). Discussion after the reading is also a valued piece of reader response, which provides a forum for students to raise additional questions, elaborate on arguments, share reflections, and negotiate meaning (Noll, 1994).

Literature Circles: “Literature circles and book clubs are ways of organizing the reading of books and other texts in which students play a significant role in text selection and collective

discussions. Typically, groups of four or five students read the same book or text and hold discussions about it. . . . Students may read in or out of class or meet periodically during class to discuss their reading. Students assume specific roles during the discussions (i.e., discussion leader, recorder, encourager, etc.) and may keep a journal or reader-response log” (Blanton, Wood, & Taylor, 2007, p. 88).

Procedures

This study applied a mixed-methods model to analyze data gathered through pre-survey, post-survey, post-interviews, and blog discussion entries created when fourth grade students participated in blogging or traditional literature response. Following random assignment to the blogging or traditional response group, half of the participants completed reader response prompts in the form of literature circle roles traditionally, using pencil and paper, while the other half of the participants completed literature circle response prompts in a blogging forum.

All student participants completed surveys assessing reading motivation and sense of classroom community before reading the assigned novel and completing literature response prompts. The same two surveys were administered at the conclusion of the study after the participants had finished reading the novel and completed five literature circle response prompts. Post-reading comprehension test scores were collected from all participants as well. Pre- and post-treatment reading motivation and classroom community scores and post-reading comprehension scores provided the quantitative data for this study

In the qualitative phase of the study, an interview was conducted with the teacher/facilitator to gain insight into the research questions. Focus group student interviews were also conducted at the conclusion of the study. The data gathered in the qualitative phase of

the study were used to gain insight into the research questions and to interpret the quantitative results.

Significance of Study

It is an important responsibility of intermediate grade teachers to provide high-quality reading instruction and ultimately increase reading proficiency of all students within the classroom. In researching specific methods that may promote reading engagement and achievement, implications for classroom practice were considered. Within the current study, the effects of blogging on students' reading motivation, sense of classroom community, and reading comprehension in a collaborative blogging environment were of interest. Knowledge gained through the study may be applied to support relevant technology use and inform instructional practice for teaching reading in the intermediate grades, as well as to guide future research related to blogging for academic purposes.

Limitations

In considering classroom practice and planning future studies, limitations of the current study must be considered. Such limitations include the effects of variables other than the literature response method, the selected sample, the research design, and students' ability to access to technology. By considering these limitations, the data can be used most effectively moving forward.

The goal of the present study was to determine how reading motivation, sense of classroom community, and reading comprehension were influenced by blogging in response to literature as opposed to traditional means of literature response. It is possible, however, that reading motivation, sense of classroom community, and reading comprehension may have been affected by variables other than the response method. For example, the novel selection may have

contributed to students' reading motivation scores, as the teacher selected the text that was used as the basis of the literature discussions throughout the study. The data were also collected at the end of the school year, which may have influenced students' reading motivation as well. The effect of these variables was a limitation of the study.

Other limitations of the study include students and classrooms to which the results are applicable. Fourth grade students in Pennsylvania schools were the focus of the study, so it is possible that the results would be irrelevant to teachers of students outside the sample age group or state. Also, the materials and methods used in the study were specific to literature circle responses made about an assigned reading. Therefore, it may be difficult to generalize results suggesting that technology integration affects reading achievement beyond its use in responding to literature.

The sample selected for this study was one of convenience and availability. After contacting several intermediate school administrators and teachers, most decided that the logistics of conducting the study would be too difficult to organize. Therefore, students in fourth grade classrooms of one elementary school were the only students included in the study. The small sample size was a limitation, especially for the quantitative portion of the study. There were 33 fourth grade student participants and one teacher participant in the study. In the future, it would be beneficial to extend the study into fifth and sixth grade classrooms. The inclusion of other grades would allow for a larger sample. With a larger sample spanning several grades, the possibility that the results could be generalized may increase.

The research design selected for the study was also a limitation. A mixed-methods design was selected so that qualitative data gathered through student interviews could be used to gain insight into the research questions and to further interpret the quantitative results. While

information gained from the teacher/facilitator and focus group interviews was beneficial, a total qualitative study would have allowed for more in-depth probing of the research questions.

Ongoing conversations with students as they completed the literature response blogs may have offered insight into the ways in which the learning process is affected by blogging.

Inconsistent implementation presented other limitations for the study. Literature circle lessons and blogging in response to literature were new classroom activities for the teacher who implemented the study. While the teacher was trained on facilitating literature circle lessons and using the blogging platform, frustration occurred during implementation. This frustration resulted in some lessons not being implemented as intended. In the beginning of the study, the teacher had both response groups complete work traditionally, using pencil and paper, to become familiar with the process. Then, the blogging group transferred their work to the online forum. Therefore, there was frustration among the blogging group members because it resulted in completing extra work for the initial assignment. Of the five literature circle assignments, only the first was completed traditionally for both groups. For the remaining four assignments, the blogging group responded only in the online forum.

Another limitation of the study was the lack of access to technology for some students. This limitation was two-fold as it was a problem inside and outside of school. The teacher/facilitator noted that there were technical difficulties with the student laptops on several occasions, which frustrated students. Lack of technology was also an issue outside of school, as the teacher/facilitator noted that several students did not have access to a computer at home. The lack of access to the blog should be considered when interpreting the results. Without working technology, students cannot use a blog as the tool it is intended to be.

Lastly, the time of year that the research was conducted was a limitation for this study. The administrators at the study site requested that data were collected after the Pennsylvania System of School Assessment (PSSA) testing was complete. As a result, research began at the end of April, and the post-treatment surveys and focus group interviews were conducted during the final week of the school year. Students were not as invested in the process at this point as they may have been if the research had been conducted at a different time of year.

Summary

Literacy learning is important, especially as students make the transition from “learning to read” to “reading to learn” in the intermediate grades (Duke, 2000). As many students struggle to acquire critical thinking skills and achieve comprehension at this point in their education, blogging in response to literature may serve to increase motivation, build a sense of classroom community, and ultimately improve reading comprehension. An educational blog supporting literature response can provide an incentive for engaging in reading tasks, as well as a peer-supported learning environment that may foster constructivist learning and critical thinking. To examine the value of blogging in response to literature this study applied a mixed-methods model to analyze data gathered through pre-survey, post-survey, post-interviews, and blog discussion entries created when fourth grade students participated in blogging in response to an assigned reading.

In Chapter II, blogging, motivation, sense of community and reading comprehension will be considered. More specifically, intermediate grade reading instruction, student motivation, classroom community, critical thinking and reading comprehension, and the constructivist learning environment will be reviewed. Additionally, the way blogging and other 21st century learning tools relate to these topics will be considered. Social constructivist theory,

transactional/reader response theory and collective knowledge building will provide a theoretical base for the study.

CHAPTER II

REVIEW OF THE LITERATURE

In order to prepare students to be successful 21st century citizens, educators need to make learning the priority within classrooms while continuing to value children and their experiences (Ercegovac, 2012). This mindset represents a shift in current practice, as the No Child Left Behind legislation of 2001 and subsequent standards initiatives, including the Common Core State Standards (2010), have resulted in instruction focused on raising test scores rather than facilitating experiences that lead to a love of learning (Bailey, 2009; Dennis, 2008). Within this context, students have fewer opportunities to engage in problem-solving activities, exercise creativity, work collaboratively, and explore technology (Gallagher, 2010). These skills, along with meaningful literacy education, should be fostered in schools to prepare students to be successful adults. Online discussion that is related to reading can provide opportunities for students to create and to interact with text in meaningful ways (Suhr, Hernandez, Grimes, & Warschauer, 2010). Throughout the process, the learners have opportunities to evaluate and to integrate information from multiple sources as they construct meaning of material (Zawilinski, 2009). As a result, students are motivated to achieve as they gain understanding through authentic learning experiences (Swanson & Legutko, 2008). For these reasons, blogging, in response to literature, was of interest in this study.

Reading Instruction in the Intermediate Grades

Fourth grade is a critical time for reading instruction (McNamara, Ozuru & Floyd, 2011). As students transition from the task of *learning to read* to *reading to learn*, they often find themselves unprepared to comprehend the complex texts presented at this level (Duke, 2000; Pappas, 1993; Rose & Acevedo, 2006; Wyatt-Smith & Cumming, 2003). Even students who

were previously successful readers may experience difficulty as they encounter increased expository texts in the intermediate years (Biancarosa & Snow, 2004; Kitson, 2011; Readence, Bean & Baldwin, 1998). This period, often referred to as the “fourth-grade slump,” begins a pattern of academic failure that continues through middle school and, for many, beyond (Bintz, 1997; Blanton, Wood, & Taylor, 2007; Donahue, Daane, & Grigg, 2003).

Declining literacy skills in the intermediate grades can be attributed to a mismatch between the needs and preferences of the students and the instructional opportunities presented to them (Ivey & Broaddus, 2001; Pitcher et al., 2007). This mismatch has been intensified in recent years due to high-stakes assessments which have left school districts searching for a “silver-bullet” curriculum that will result in proficiency among students (Dennis, 2008). In an effort to raise test scores, students are often being exposed to a one-size-fits-all curriculum that is skills-based, rather than process-based, and instructional methods are not matching the specific needs of individual students (Alexander & Fox, 2004; Krashen, 2014). As a result, substantial amounts of time are spent on test preparation while meaningful learning activities dwindle in the intermediate grade classrooms (Allington, 2011; Valencia & Buly, 2002). This type of instruction persists despite observations that better-performing schools tend to organize literacy lessons around meaningful learning communities that allow for extensive interactive discussion of material read (Batchelor, 2012; Blanton, Wood, & Taylor, 2007; Langer, 2014; Wenglinsky, 2004). Responding to text through conversation and writing allows students to build understanding as they discuss the reading material.

Talking about Text

Reading to learn from text requires much more than mastery of isolated skills. In order for students to successfully construct meaning, the task requires social interaction. In studying

successful schools, Mosenthal, Lipson, Torncello, Russ, and Mekkelsen (2004) noted that those schools that met and exceeded standards on statewide reading assessments allowed ample opportunities for students to read and discuss books. Through discussion, students become engaged and extend their literal and figurative comprehension (Ivey & Broaddus, 2001; Johnson, Johnson & Roseth, 2010; Thompson, Mixon, & Serpell, 1996). As a protocol for meaningful text talk, Stevens (2006) offered the following example:

Often students read the first part of a literature selection and stop to engage in a discussion with a peer about the characters and their motivation, the problem in the story, and their suggestions about how the problem might be resolved. They also discuss questions related to the author's purpose or style, and the interpretation of figurative language or literary techniques used. Following the discussion, the partners write their responses to the questions and then continue reading the story. (p. 3)

Such discussions help engage the learners in reading and further the comprehension of the group (Stevens, 2006).

It has been established in the literature that students learn best through participatory models of teaching where rich discussions and meta-cognitive conversations are encouraged (Albaugh, 2013; Alvermann, 2002; Batchelor, 2014; Bransford, Brown, & Cocking, 2000; International Reading Association, 1999; Johnson, Johnson, & Roseth, 2010; Myers, 2014; Willis, 2007; Wolfgang, 2009). Students with a range of reading abilities can benefit from meaningful conversations, as described above, as text discussion meets the needs of diverse learners. Dennis (2008) provided an example of one middle school student who, although placed in remedial reading class due to low test scores, was just as capable as her more successful peers when provided with high-quality, conversation-rich reading instruction.

Conversely, students who are high-achievers benefit from text discussion, as it provides opportunities for peers to ask and discuss higher-level questions (Little, McCoach, & Reis, 2014). The scaffolding provided to all students as they discuss text helps them to first think and comprehend as a group and later internalize the process which may transform their individual thinking (Blanton, Wood, & Taylor, 2007). Therefore, students of a range of abilities benefit from talking about text, as group discussions aid in clarifying understanding. In addition to this type of face-to-face interaction, writing in response to text with the expectation of sharing it with peers has been found to benefit to literacy learning as well (Amendum et al., 2009).

Writing about Text

As noted above, active responses during the reading lesson allow for increased student engagement, motivation to participate, and improved reading comprehension (Taylor et al., 2003). While talking about text is one means of active response, writing about reading is another (Amendum et al., 2009). Through written expression, students are motivated to express their ideas well as they share with peers. As students write about text, they are able to respond to what they have read while serving as a role model for their peers in writing. Furthermore, through literature study, students read rich descriptions, plot development, and figurative language of famous authors, which serve as a model for their written response (Stevens, 2006). Following this format, students not only improve comprehension but enhance writing skills as well.

Since the National Writing Project of the 1970s, writing has increasingly become the focus of language arts instruction (Fisher & Frey, 2013; Strickland et al., 2001). Increased writing in the language arts curriculum is also supported by the Common Core State Standards (2010). Linking reading and the writing process, as is done in literature response, helps students

develop skills necessary to pursue independent reading and research in the content areas (Howard, 2016; Moss, Leone, & Dipollo, 1997). Through such activities, students not only read to comprehend but also discover and learn from the process used by writers (Ivey & Broaddus, 2000). This active learning process links reading and writing and benefits intermediate grade students as readers.

As Myers (2014) noted, students have been responding to text in various ways for decades. Whether it is through discussion or writing, responding to text offers opportunities to collaborate with peers to form a deeper understanding. Literature circle lessons offer a collaborative forum in which conversations and written response about reading are supported.

Literature Circles

Ivey and Broaddus (2000) asserted that two critical responsibilities of teachers of intermediate grade readers are to match instruction to student development and to provide contexts in which students can become engaged in reading. One such context is to provide opportunities for literature discussion through literature circles (Batchelor, 2012; Murphy & Edwards, 2005; Soter et al., 2008). A meta-analysis of discussion approaches revealed that through literature circle talk, students were encouraged to actively participate in discussions and that they recognized their responses to be central to constructing meaning within the group (Wilkinson, Soter & Murphy, 2007). Therefore, this active model of learning has the potential to increase student engagement and sense of community as students build understanding.

Literature circles provide a means of organizing student discussion focused on a common text. During literature circle lessons, students play a significant role in choosing the reading material and guiding the literature discussions (Batchelor, 2012; Daniels, 2002; McMahon, 1994; Noe & King, 2003; Short & Kauffman, 1995). As Blanton, Wood, and Taylor (2007) explained:

Typically, groups of four or five students read the same book or text and hold discussions about it. The text selected can be short or long, fiction or nonfiction, so long as it is of interest to the students and can stimulate meaningful discussion. Students may read in or out of class or meet periodically during class to discuss their reading. Students assume specific roles during the discussions (i.e., discussion leader, recorder, encourager, etc.) and may keep a journal or reader-response log.” (p. 88)

Literature circles allow students to read, to collectively construct meaning, and to develop an understanding of a topic or text. Through their discussions, students are able to work through sections of the text by engaging in talk about word meaning and connotation, powerful excerpts from the book, ways in which they connected the text to other literature, and any content that they found challenging or unclear (Batchelor, 2012; Blanton, Wood, & Taylor, 2007). Students can bring questions to the group for discussion and may recruit help from the teacher when necessary. The focus of the conversation, however, typically remains with the students. Completing literature circle roles and meeting to discuss sections of the text aids students in developing understanding and offers a means of literature response.

Reader Response Theory

The process of reading a text, responding in writing, and following up with discussion is often referred to as reader response. Reader response activities are based on Louise Rosenblatt’s (1978) transactional/reader response theory. According to Tracey and Morrow (2006), Rosenblatt’s theory states that “all readers have individualized reading experiences because each reader has unique background schemas” (p. 55). Therefore, each reader’s experience with the text is unique because it is based on the interaction between background knowledge brought to the text and the reading content. This perspective is significant because it empowers readers to

comprehend the text based on their personal experiences (Albaugh, 2013). Therefore, opportunities to unite readers are often well-received by students because their combined experiences become significant in understanding the text (Franklin-Matkowski, 2007).

Students have been completing reader response activities for decades (Myers, 2014). In schools, most response formats emphasize writing, usually in the form of journals, and are often followed up with discussion of the text (Dressman, 2004; Noll, 1994; Spiegel, 1998). Blogging offers an attractive alternative to traditional reader response activities. As Myers (2014) stated, “Reader response is a valuable way for students to connect to stories and make meaning. However, allowing students to do this activity online is even more sophisticated because it requires students to utilize 21st century skills such as collaboration and communication” (p. 60).

In reviewing the literature regarding reading instruction in the intermediate grades, it is clear that students benefit from interactive, participatory models of teaching and learning (Batchelor, 2012; Blanton, Wood, & Taylor, 2007; Langer, 1999; Wenglinisky, 2004). As students have opportunities to talk and write about text, they clarify thinking, build understanding, and extend their knowledge alongside peers. The socialization and collaboration afforded by such practices play a vital role in adolescent learning (Fawcett & Garton, 2005; Gooch & Saine, 2011).

Discussion after reading and writing in response to literature provide valuable opportunities for intermediate grade students to negotiate meaning of text using the reader response format. Opportunities for reader response, supported through implementation of literatures circles, are presented as students meet to discuss common text or engage in conversation through a blogging platform. The collaborative nature of such activities is a motivating factor for intermediate grade students.

Motivation

Motivation is central to all stages of reading development (Logan, Medford & Hughes, 2011). In fact, without motivation to read, students will not reach their full potential even as they receive effective instruction in the key areas of literacy (Anmarkrud & Braten, 2009; Gambrell, 2010; Logan, Medford & Hughes, 2011; Taboada, Tonks, Wigfield & Guthrie, 2009).

Cunningham and Allington (2015) asserted that one way to increase student motivation in reading is to embed instruction in authentic and relevant experiences. Such experiences include literacy tasks that result in the construction of new meaning and require ownership on the part of the learner (Edelsky, 2006). Purcell-Gates (2002) further noted that authentic tasks should involve purposeful and functional experiences that engage students.

By providing purposeful and engaging tasks related to a specific text, educators can spark situational interest in reading. This interest related to specific text is important as it pertains to student motivation because situational interest in a specific book has been found to lead to longer-term intrinsic motivation for general reading (Guthrie et al., 2006; Paige, 2011). The extension of interest in reading can be attributed to the idea that students who become motivated to read for a specific purpose often approach reading in a more positive manner, which can result in increased overall reading (Eckland & Lamon, 2008). The increased reading by students ultimately results in improved literacy skills (Gallagher, 2010; Leppanen, Aunola & Nurmi, 2005; Mol & Bus, 2011). Therefore, engaging reading activities are important to consider as they may result in increased reading motivation.

Blogging and Engagement

Digital writing and online discourse promote situational interest in reading, as they offer opportunities for students to select from a range of tools to analyze and evaluate texts, organize

their thoughts, publish their work, and receive feedback (Brown, Cummins, & Sayers, 2007).

Yang and Chang (2012) add that “blogs leave room for students to present their results in multiple forms of media other than text” (p. 128). The experience using multi-modal methods to develop and support arguments helps develop important digital literacy skills.

Students are further motivated to become part of the learning process as ideas and information are posted in authentic ways through digital writing. The wider audience provided through blogging gives student ideas validity and results in work that is more complete, robust, and thorough (Angelaina & Jimoyiannis, 2012; Morgan, 2014; Zuger, 2010). While there is no guarantee that blog posts will reach an audience beyond the class, there is potential, which can then transform the audience from one person to the larger social community (Morgan, 2014; Sweeny, 2010). As students learn that their content can be read by people other than their teacher and classmates, feelings of competence may increase (Park, 2013).

Online discourse extends the learning possibilities presented through digital writing. As students read and respond to others’ posts, they are encouraged to engage with positions divergent from their own (Albaugh, 2013; Ellison & Yuehua, 2008). Hansfield, Dean, and Cielocha (2009) noted that such interaction is important because it presents opportunities for students to become critical consumers of information. Gallagher (2010) added that blogs are a recognizable genre in which “the provisional is valued over the final” (p. 291). Therefore, while posting and responding to blogs, students maintain an open mind. The goal is not to find the one correct, support-based answer but rather to offer insight and opinion that may help shape the understanding of others in the group. As Albaugh (2013) explained, “blogs can provide the platform for social interaction, a platform that has the potential to enhance the learning experiences for those involved” (p. 2).

Within the blogging platform, students can take ownership over their learning because they are drawing upon “funds of knowledge they bring with them to the modern day classroom” (Dredger, Woods, Beach, & Sagstetter, 2010). As critical consumers, students are motivated to read texts and construct their thoughts more carefully because they recognize that their responses will be posted in a digital forum and will help shape the learning of the group (Ellison & Yuehua, 2008). As a result, the learning is extended as students become accountable to a wide audience.

Blogging and Motivation

Blogging about text offers motivating opportunities for students. As learners can quickly access, link to, and extend educational resources through blogging, they find their voice about the topic and take control of their learning (Kang, Bonk, & Kim, 2011). Boyd (2013) added that as students take ownership over their learning, they are more likely to be intrinsically motivated to participate, especially when teachers incorporate technologies that already maximize student interest.

Churchill (2009) noted particularly effective blog-based educational activities: reading the blogs of others, writing and receiving comments, previewing tasks of others, and receiving feedback in relation to these activities. Morgan (2014) offered further suggestions for blog use in the classroom in recommending blogging for the following activities: creative writing, literature circle discussion, discussion of current events, writing opinion pieces, and engaging in student reflection. Such tasks are motivating as students’ needs and opinions are recognized and addressed. Larson (2013) explained that by not taking advantage of digital resources such as blogging in this manner, educators are missing opportunities to open communication among students.

As students engage in online discourse, analysis, synthesis, and evaluation of information are required (Leu, Forzani, Timbrell, & Maykel, 2015; Zawilinski, 2009). These higher-order thinking skills are developed as students gather and respond to information from multiple sources. Students further exercise critical thinking in evaluating what information and responses to publish. In doing so, students are able to engage more actively with the reading by sharing important passages, collaborating to interpret meaning, and building connections through literacy experiences (Waters, 2010). With time and blogging experience, confidence also increases, which often leads students to take risks in their writing and explore new topics through blogging (McGrail & Davis, 2011). As a result, increased learning occurs (Willis, 2007; Wolfgang, 2009).

Academic Implications

While adolescents' experiences with blogging may be primarily social in nature, research suggests that academic blogging is quickly becoming a preferred activity in classrooms once it is introduced (Anderson-Butcher et al., 2010; Davis & McGrail, 2009; Morgan, 2014). Since many students prefer technology-based assignments, they have also been found to use more words and an expanded vocabulary when expressing their thoughts in blog posts as opposed to in writing (Albaugh, 2013; Cobanoglu & Berezina, 2011). Davies and Merchant (2007) noted that blogging offers space for developing and modeling literacy processes. As students write about text, they engage in critical thinking and reflection while using blogs as communicative technology.

In studying the effects of blogging on elementary student writing, McGrail and Davis (2011) noted that students developed a wider perspective about the topic at hand when blogging about it. Additionally, students in the study developed more effective revision techniques, improved attention to grammar and spelling, and demonstrated increased self-confidence in

communication skills. It was also noted that as students created blogs and received responses, they moved away from a self-centered point of view. Anderson-Butcher et al. (2010) suggested that the less self-centered point of view occurs as students recognize an impact on the wider community and therefore turn their posts toward more relevant issues.

Blogging in the classroom has also been found to benefit reluctant readers (Albaugh, 2013; Boling, Castek, Zawilinski, Barton, & Nierlich, 2008; Chen, Liu, Shih, Wu, & Yuan, 2011; Davis & McGrail, 2009). Those who may be hesitant to participate in face-to-face discussions may be more involved and motivated to participate in blogging due to the wider audience (Boling et al., 2008; Myers, 2014). It was also noted that the collaborative nature of blogging allowed slower readers and writers to contribute with less apprehension (Albaugh, 2013; McGrail & Davis, 2009). The process of online discourse allows time for students to receive feedback, reevaluate their writing, and ultimately refine their thinking (Chen et al., 2011).

Motivation is a key factor in literacy learning. By engaging students in specific reading activities, motivation can be positively affected. As students become engaged in reading for a specific purpose, they often read more overall. This increase has been found to result in improved literacy skills. Therefore, engaging activities such as blogging about text are important to consider. Blogging in response to literature is an engaging task that helps foster a community of learners (Myers, 2014; Zhang, 2009)

Sense of Classroom Community

Classroom environments as perceived by students have been found to influence students' development, growth, and achievement (LaRocque, 2008). Those environments that are perceived as safe, warm, and supportive encourage work and promote a sense of enjoyment and

accomplishment (Charles, 2002; Lai, Chou, Miao, Wu, Lee & Jwo, 2015). Moreover, since the development of the Learning Environment Inventory (LEI), the effects of the socio-psychological characteristics of the classroom learning environment have been found to be good predictors of cognitive and affective learning outcomes (Fraser, Anderson, & Walberg, 1982). Studies using this instrument suggest that student perceptions of the environment account for appreciative variance in learning outcomes, beyond what can be attributed to difference in student characteristics (Fraser, 1998).

Components of Classroom Community

Research demonstrates that community-building in schools plays an integral part in student success (Lai et al., 2015; Rule & Kyle, 2009). McMillan and Chavis (1986) defined community as “a feeling that members have of belonging, a feeling that they matter to one another and to the group, and a shared faith that members’ needs will be met through their commitment to be together” (p. 9).

Rovai (2002) supported this view and theorizes that there are four main components to classroom community:

A sense of membership in the community and feelings of friendship between members of the learning community (“spirit”); a perception that community members can be trusted and relied upon to be genuinely interested in one another’s welfare and supportive of one another’s learning (“trust”); a sense of mutual benefit from interactions both in supporting specific tasks and in fulfilling social or emotional needs (“interaction”); and a transformative interactive learning process through which students meet their common learning goals (“common expectations: learning”). (p. 1)

Wilson and Lowry (2001) added that this type of community can be designed and supported as a learning outcome instrumental in meeting other learning objectives. Therefore, designing lessons in which students are encouraged to share their thoughts and engage in conversations with others supports community-building in the classroom. Online platforms, included as part of technology integration in the classroom, offer community-building opportunities as well.

Online Community

One way classroom community is supported in schools is through the use of online platforms. Increasingly, computers and other technological devices have been considered powerful tools for creating community and supporting collaborative learning (Hmelo-Silver, 2006; Hutchison & Colwell, 2014; Myers, 2014). As has been noted by several researchers, technology can be used to extend classroom experiences beyond the physical classroom and expand learning into virtual spaces (Albaugh, 2013; Felix, 2007; Jonassen, Reeves, Hong, & Harvey, 1997; Lajoie & Derry, 1993; Lajoie, Garcia, & Berdugo, 2006). Within this context, cognitive tools enable new forms of social knowledge construction (Franklin-Matkowski, 2009; Hutchison & Colwell, 2014; Lajoie, 2000).

Collaborative communities created through online discourse offer opportunities for students to develop individual and collective understanding. As contexts are shared, perspectives compared, and information communicated, the online tools offer support for both individual and group cognition (Goldman-Segall & Maxwell, 2003). Through discussion in the online forum, students have the opportunity to advance their individual understanding by collaborating with their peers while furthering the knowledge of the group. Additionally, reflective engagement is promoted within an online collaborative environment, and small-group peer support is often offered (Lucey, O'Malley, & Janssen, 2009). As students share ideas and read others' comments

in the online forum, there are ongoing opportunities to confirm their thoughts or revise their thinking throughout the process.

As students develop learning communities in this setting, they pass through five stages observed by Waltonen-Moore, Stuart, Newton, Oswald, and Varonis (2006). The first stage is the introduction stage in which posts provide contextual information yet lack curricular relevancy. In the next stage, the identification stage, members begin to empathize and associate with each other. Student reflection, the third stage, occurs through intentional dialogue about course material. The fourth stage, involvement, emerges when members work together to develop understanding about the context. The fifth and final stage, inquiry, occurs when members extend the learning to other contexts and develop new ideas through conversation. In the final stage, groups are functioning at high levels as they apply knowledge gained in the online community to new contexts. As Myers (2014) noted in her study of sixth grade students who engaged in digital literature response, students moved from making superficial comments in which they “spit back information” to “taking a critical stance on an issue.” Throughout the course of this three-month study, the five stages of community development were visible in the blogging forum.

Blogging and Classroom Community

Blogging is becoming increasingly popular in our culture (Boyd, 2013). As of 2006, 57 million Americans read blogs and 12 million Americans maintained their own blog (Lenhart & Fox, 2006). Felix (2007) added that based on data from the Pew Internet and American Life Project, 55 percent of Americans between the ages of 12-17 participate in a social network such as blogging. Since blogging platforms are accessed through the Internet, online accessibility is also important to consider. According to the Miniwatts Marketing Group, almost 40% of the

world's population had access to the Internet in 2015. The Broadband Commission for Digital Development (2014) added that at the current rate of adoption, half of the world's population will have access by 2017, and everyone will have access within 10 years. These numbers suggest that students bring interest and experience in blogging into the classroom (Boyd, 2013).

Halic (2010) defined blogs: "Essentially a form of personal publishing, the blog is a text-based online environment which allows for embedding links to other online resources and in which the author's posts appear in reverse chronological order" (p. 206). Although defined as "personal publishing," blogs have communication with others as a central purpose (Wheeler, 2009). Therefore, content posted on a blogging site is done so to communicate ideas with and receive feedback from the larger online community. Blogs typically include comment boxes that allow readers to submit responses to the initial posting. This interactive feature makes blogs social, rather than simply textual, in nature (Burgess, 2006). Ahmad and Lutters (2011) added that, in the classroom, the ability to comment means that "a blog is interactive in the sense that readers can respond with comments which will be beneficial in promoting a collaborative learning environment" (p. 4).

The student-to-student communication supported through blogging decentralizes power from the teacher and emphasizes student-centered learning. Within this format, everyone has a voice and becomes a valued member of the learning community (Yang & Chang, 2012). As Miller (2011) explained, "blogging is a form of dialogue" and "such interaction builds relationships with others and fosters the collaborative posing and solving of problems" (p. 24, 27). Within the blogging forum, students are able to connect in a way that has been previously unavailable in the context of school (Myers, 2014).

As relationships develop within the blogging forum, many students gain confidence in sharing their ideas. As confidence increases, comments and responses often become more frequent (Gee & Hayes, 2011). Moreover, Albaugh (2013) reported that the increased frequency of responses has the potential to carry over from the blog posts and comments to classroom discussion. In describing the ways in which struggling readers benefitted from blogging, she states, “Students who had remained silent observers for the first two months of school were suddenly moved to make predictions or inferences during class discussions. Many of their comments were related to their blog posts” (p. 5). For this reason, Wang and Hsua (2008) referred to blogs as “the strong equalizer” (p. 83). They explained that face-to-face discussions are frequently dominated by only a few participants who determine the topic. Responding in the blogging forum, however, enables participants to raise their comfort level regarding expressions of different perspectives.

Students want to communicate with others, to be a part of the classroom community, and to feel connected to each other. Deng and Yuen (2012) suggested that blogs help students feel more connected to their peers and encourage them to be more active participants in the class and in their blogging posts. Shen and Chiou (2009) added that “the stronger the link that people felt to the community, the greater the motivation they felt to post to their blogs” (p.403). As students write and receive feedback through a blog, they become empowered. Realizing that others value their ideas enough to engage with them motivates participation (Albaugh, 2013; Boyd, 2013; Myers, 2014).

When students are immersed in a friendly, cooperative, participating, and caring learning environment, mental health and learning outcomes improve (Lai et al., 2015). The sense of community developed through blogging often leads students to engage more often in

conversations about the text. In doing so, there are increased opportunities for students to read, write, and think from a critical perspective. For this reason, it is important to consider blogging in relation to reading comprehension.

Reading Comprehension

Reading comprehension has been conceptualized as:

A complex activity that requires the reader (in this case, the student) to call on the coordination of cognitive, regulatory, linguistic, and text-specific processes, including decoding of text, which are developing over time and that have reciprocal and interacting bootstrapping effects on one another. (Connor et al., 2014, p. 380)

Several researchers noted that comprehension is becoming an even more complex process as new technologies for literacy are increasingly prevalent in the classroom (Albaugh, 2013; Ercegovic, 2012; Hutchison & Colwell, 2014; Leu et al., 2015).

As Leu et al. (2015) explained, online reading consists of complex layering of both offline and online reading skills. In this context, traditional reading skills, such as word recognition, vocabulary development, inferential reasoning, and comprehension monitoring need to be developed alongside online practices and skills, such as locating information online and communicating with online tools. Therefore, there is a need in education to incorporate digital literacy into the comprehension process. The English Language Arts (ELA) Standards of the Common Core State Standards support increased integration of online reading in the comprehension process as there is now an increased emphasis on reading informational texts, a greater focus on higher-level thinking, and the presence of digital literacies integrated within the ELA Standards (CCSS, 2010). In order to make meaning of text, critical thinking skills are

required throughout the comprehension process. Many elements of the blogging forum support the development of critical thinking skills.

Blogging and Critical Thinking

Blogging has often been found to be a means of improving critical thinking (Albaugh, 2013; Myers, 2014; Sy-Ying Lee, 2015; Zawilinski, 2009). As students write their thoughts in the online forum and receive feedback from peers, they have opportunities to engage perspectives that are different from their own (Szabo & Schwartz, 2011). Considering multiple perspectives offers an opportunity for students to synthesize information, which may help them develop critical thinking related to the topic. Walsh, Asha, and Springer (2007) further noted that online collaboration allows for increased understanding. As students engage in language modes simultaneously while interacting with the text, their peers, and technology, they are able to clarify their thinking.

Though blogging serves as an environment that may foster higher-order learning, recent research shows that online environments are not being utilized to their full potential (Clark & Paulsen, 2016). In evaluating critical thinking in online discussions, Garrison, Anderson and Archer (2001) and Gilbert and Dabbagh (2005) found that 75% to 80% of students' online postings were at the lower-order thinking levels of Bloom's Taxonomy of Educational Objectives (Bloom, Engelhart, Furst, Hill, & Krathwohl, 1956). Therefore, it is important to consider instructional approaches that support critical thinking in the online environment. Such approaches include using online technologies to develop beginning reading skills, teaching students to collaborate online, providing opportunities for students to conduct internet research, and engaging students in collaborative online reading (Leu et al., 2015).

Leu et al. (2015) asserted that with the limitless possibilities of online tools for technology integration in the classroom, educators must make wise decisions to enable student learning. Despite the range of possibilities, it is further argued in the research that online reading and learning should be the focus of instruction (Ercegovic, 2012; Leu et al., 2015). By giving students opportunities to read and to respond to text in an online environment, they learn to locate, synthesize, evaluate, and communicate information. Each of these steps is supported through blogging in response to literature and will prepare students for life in today's world (Leu et al., 2015; Organization for Economic Co-operation and Development, 2011; Zawilinski, 2009).

The interactive nature of blogging offers students opportunities to communicate with peers to form a deeper understanding of the text (Albaugh, 2013). Instructional strategies, such as encouraging online reading and response, aid in developing comprehension throughout the process. Much of the improved comprehension can be attributed to elements supported in the constructivist learning environment. Felix (2007) stated, "as students tap into the collective knowledge on the blog and then subsequently add to that knowledge, they become able to express their knowledge as Vygotsky states on their own level of understanding" (p. 41). Vygotsky's social constructivist theory, in relation to blogging, is discussed in the next section.

Social Constructivist Theory and the Digital Learning Environment

Digital discourse, implemented through blogs, wikis, and other online collaboration tools, has been found to be an effective means of promoting student engagement, community-building, and comprehension in reading (Duncan, 2010; Myers, 2014; Perry 1999; Suhr, Hernandez, Grimes & Warschauer, 2010; Yancy, 2009). Such findings can be attributed to the application of many elements supported by Lev Vygotsky's social constructivist theory, which asserts that

“children’s knowledge, ideas, attitudes, and values develop through interaction with others” (Tracey & Morrow, 2006, p. 108). Such opportunities for socialization are supported in blogging because peer collaboration, reciprocal teaching, and scaffolding naturally occur as students engage in online discourse. This collaboration is due to the conversational and relational nature of the tasks (Cambourne, 1995).

As students offer new points of view, consider those of others, and ultimately synthesize their thinking, opportunities to gain understanding are created (Szabo & Schwartz, 2011). This opportunity for critical thinking leads students to be active participants in constructing meaning through digital response as they draw upon knowledge of self, interactions with others, and prior experience (Burkhart, 2012). Additionally, a multidimensional learning environment based on learner-centered principles is promoted through digital writing in an online community such as a blogging platform. These characteristics of online response lead students to be highly motivated in completing the authentic tasks. Another motivating factor supported through the blogging platform is the opportunity for peer collaboration.

Opportunities for Peer Collaboration

Peer collaboration ensures that students are actively constructing meaning in the learning process. As students discuss the content, they are expected to take responsibility for their learning and contribute to others’ learning, as well. In doing so, ideas are clarified and shared while social interactions serve an instructional function (Schunk, 2008). Miller (2011) explained that blogging offers opportunities for peer collaboration: “Blogging is a form of dialogue and such interaction builds relationships with others and fosters the collaborative posing and solving of problems” (p. 27).

According to Ertmer and Ottenbreit-Leftwich (2010), teachers should develop students' abilities to work collaboratively and take control of their learning in an instructional-and-communication-technology-rich (ICT) environment. Blogging provides one such opportunity as students engage in conversations about text and refine their thinking while enhancing social connections through online discourse (Zawilinski, 2009). Through such conversations, partnerships are formed and students feel valued for their unique perspective and experiences (Kervin & Mantei, 2010). This collaboration promotes student engagement with the literature and response.

As students record their thoughts in the blogging forum, others can respond to their entries by commenting on initial posts (Ahmad & Lutters, 2011). By engaging in digital response to novels, students are encouraged to exercise critical thinking skills in creating, reading, and responding to blog entries while receiving valuable feedback through the online forum. The collaborative nature of these tasks offers opportunities for collective knowledge building in which the groups' collective knowledge as well as individual understanding is further developed as a result of working together (Bereiter, 2002). As students collaborate in the online forum, they often take control of their learning, and reciprocal teaching results.

Encouragement of Reciprocal Teaching

Reciprocal teaching involves an interactive dialogue between the teacher and students. After modeling the activities, the teacher turns over control, resulting in increased responsibility on behalf of the students that allows them to construct their own meaning (Schunk, 2008). This model of instruction often occurs as students engage in blogging and create a motivating and supportive environment in which to work on authentic tasks. Within this format, students receive guidance and explicit teacher instruction when necessary (Tobin & McInnes, 2008).

Reciprocal teaching has proven to be an effective strategy in improving reading comprehension (Lysynchuk, Pressley, & Vye, 1990; Palincsar & Brown, 1984). Studies have also found that reciprocal teaching develops students' higher-order thinking skills, fosters students' reading comprehension in reading classes, and enhances low achievers' acquisition of vocabulary and reading comprehension (Alfassi, 1998; Hacker & Tenent, 2002; Todd, 2006). Therefore, the partnerships formed through reciprocal teaching are important to consider.

Kervin and Mantei (2010) noted that the partnerships formed between teachers and students through such instruction are important as students feel a sense of value as members of the learning community. This sense of community can affect reading achievement in that students' attitudes toward literacy are shaped by the relationships or positions they enact with their teachers (McCarthy, 2002; Miller, 2011). As teachers respond to digital writing and online blog posts, students are encouraged to expand their thinking and feel motivated to achieve. In implementing this strategy, students are responsible for constructing meaning in a social setting. The interaction with others in this social setting also allows for natural scaffolding to occur.

Natural Scaffolding

Responsive literacy instruction has been found to increase the reading success of diverse learners through scaffolding provided through online discourse (Albaugh, 2013; Mathes, Denton, Fletcher, Anthony, Francis, & Schatschneider, 2005; Myers, 2014). In this model, the objectives of daily instruction are based on observed student needs. The teacher responds to the constructions that each student is forming through instructional scaffolding. In modeling, guiding, coaching, and fading strategies, teachers accelerate independence in reading and writing (Tobin & McInnes, 2008). As teachers take into consideration the unique needs of the learners

and become clear about their goals, strategies that promote critical thinking and problem-solving are implemented as part of the scaffolding process (Tobin & McInnes, 2008).

Warshauer (2008) noted that blogging promotes scaffolding that is authentic. Albaugh (2013) supported this claim in explaining that blogging allows for “built-in” scaffolding between students. Within the blogging forum, readers can express their connections to a text in a non-threatening and responsive environment. In doing so, students are pushed within their zones of proximal development to discuss and understand text (Albaugh, 2013).

This scaffolding occurs as the literacy processes become public, allowing students to build understanding not only through teacher guidance but by reading responses of peers as well. Throughout the process, students have the opportunity to learn from others and are supported in their construction of knowledge (Burkhart, 2012). For this reason, students reported that reading others’ posts was most helpful in their knowledge construction (Ellison & Yuehua, 2008). Doing so provided the students a model for their writing.

Peer collaboration, reciprocal teaching, and scaffolding naturally occur as students engage in online discourse. Therefore, blogging in response to literature supports these elements and offers opportunities for students to develop understanding of text in the constructivist digital-learning environment.

Constructivist Digital-Learning Environment

The constructivist learning environment offers many and varied experiences for students to create meaning of the content (Schunk, 2008). This repeated exposure occurs as students are encouraged to share their points of view, resulting in challenging and interesting activities based on individual needs. Wilkenson and Silliman (2000) noted that this repeated exposure is important in literacy learning in that providing students with extensive opportunities for the

integration of oral and written language encourages literate cognition. Furthermore, classrooms in which students are encouraged to discuss thinking and build meaning through conversations with other students and teachers have been found to facilitate greater understanding (Purcell-Gates, McIntyre, & Freppon, 1995). The constructivist learning environment is multidimensional and responsive to student needs resulting in greater achievement.

The principles of constructivism were evident as Swanson and Legutko (2008) studied the effects of blogging on the motivation of third grade reading students. Online discourse, supported through the constructivist environment, was found to encourage reflective thinking. As students interacted socially, constant revision of their thinking was a natural part of the learning process. By engaging in such a process, students were able to construct meaning as they drew upon knowledge of self, interactions with others, and experience with language (Burkhart, 2012). Interacting with the content in this manner, lead to greater reading comprehension.

Myers (2014) found similar results in studying the effects of blogging about reading content among her sixth grade students. Themes that emerged through her research were increased student confidence, students taking a critical stance, and multiple interpretations of text. She noted that the class blog allowed her students to connect in a way that had previously been unavailable to them in school. As students read their classmates posts, they had an opportunity to see a variety of perspectives which challenged them to expand their thinking. Dressman (2004) noted that this type of interaction may lead students to discover a different understanding.

The blogging forum, which is based on constructivist learning principles, offers excellent opportunities for students to read, write, and think from a critical perspective (McLaughlin & DeVoogd, 2004). As students ponder and discuss the text, there are opportunities to advance

their individual learning, as well as the mutual understanding of the group. Such opportunities are referred to collective knowledge building.

Collective Knowledge Building

Collective knowledge building refers to the continual improvement of the group's collective knowledge as well as increased individual understanding as a result of working together (Bereiter, 2002). Cognitive tools that support collaborative knowledge building provide support for:

- Social organization
- Creation and revision of conceptual artifacts
- Citing and referencing each other's work
- Working with the same ideas in multiple contexts
- Providing feedback to support monitoring of on-going processes

By communicating through blogging, students gain access to multiple perspectives that help them rethink their own position and construct new knowledge (Boyd, 2013). As Hall and Davison (2007) noted,

Giving access to each other's work exposes them to a range of different perspectives on the same subject matter, thus providing additional opportunities to challenge their own understanding. Allowing learners opportunities to give one another comments and feedback enhances the possibilities around a subject area; it opens the further possibility of peer learning and peer support. (p. 168)

Being exposed to multiple perspectives benefits students in two ways. First, it allows them to see that there are multiple ways to interpret course material. This exposure results in students having more perspectives to draw from in reflecting upon their own understandings.

While considering alternate views and competing opinions, students are forced to think critically about the topic (Freeman & Brett, 2012). Secondly, receiving feedback helps students to develop their thinking about a topic. As peers engage with their ideas, students learn that knowledge is not a fixed entity, but rather is constructed through ongoing discourse within the community (Boyd, 2013). To facilitate these learning experiences, teachers must apply technology, pedagogical, and content knowledge in order to maximize the constructivist learning environment.

Technology, Pedagogical, and Content Knowledge

As technology emerges and students evolve into 21st century learners, educators are challenged to expand their knowledge base to promote engagement and achievement among students. For many educators, this shift means building upon strong content and pedagogical knowledge by enhancing their understanding of technology. Mishra and Kohler (2010) noted that having command of all three areas is important as quality teaching now requires a nuanced understanding of the complex relationships between technology, content, and pedagogy. Once gained, it can be used to develop appropriate, context-specific strategies to promote student learning. Therefore, in order to effectively use digital writing and online discourse in the classroom to promote reading success, exemplary pedagogy should be supported through the use of technology while remaining focused on the content.

Knowledge of Technology

The technical knowledge required by teachers to facilitate digital writing and online discourse in the classroom is rather limited and easily attainable (Jerles, 2012). Platforms such as Kidblog (www.kidblog.org) and Edublog (www.edublogs.org) guide educators through the easy process of setting up a classroom blog for free. Once created, teachers need to acquire a few

technical skills. Such skills include the ability to navigate the site, noting how to create posts and make comments, and how to most effectively use the safety features. Stansbury's article in *Leading and Learning with Technology* (2011) offered a quick list of tips for bloggers. Recommendations for educators range from choosing a blog name, blog content and character, etiquette in posts, and ways to cite information obtained in other blogs. Jackson's article contained blog safety advice and links to many valuable and interesting blogs for teachers, especially those at the elementary level (Jackson, 2012). Myers (2014) added that video tutorials on how to start a blog can be useful. She advises that teachers may view them by searching YouTube. Terms such as "starting a blog" followed by the name of the blog provider are recommended for finding relevant content. Lacina and Griffith (2013) recommended that teachers start slowly and take time in getting familiar with blogging before introducing it to students.

Once teachers have acquired the technical knowledge to efficiently facilitate blogging in the classroom, they can guide students in building necessary technical skills to do so, as well. Lacina and Griffith (2013) suggested that teachers practice blogging with students on paper before going online. Once they are ready, students need to be taught to access the chosen platform and how to post their digital writing. Additionally, students should be familiar with features that allow them to comment on others' writing and to provide feedback based on peer responses. Throughout the process, teachers should communicate clear expectations for student writing and provide guidance regarding relevant posts and comments (Lacina & Griffith, 2013). By doing so and enhancing technical knowledge through online discourse, learning is shifted from an activity that is bound by time and space to one that is ubiquitous and embedded in the real world (Ellison & Yuehua, 2008).

Pedagogical Knowledge

A noted benefit of blogging is the opportunity provided for students to engage in critical thinking and create content in ways not possible in traditional schooling (Myers, 2014; Johnson, 2010). Ito, Heather, Bittanti, Boyd, Herr-Stephenson, and Lange (2008) remarked, however, that a relatively small number of students are encouraged to use blogs to explore interests or find information beyond what is accessible within a traditional classroom. Therefore, teachers require pedagogical knowledge to promote in depth reflection and analysis of ideas through digital writing and response. Sternberg, Kaplan, and Borck (2007) noted that this can be done by nurturing the attributes required to become expert citizens such as problem-solving creatively and working well in teams.

Further pedagogical knowledge required to promote critical thinking through online discourse includes teaching students to engage in close reading and reflection. Gallagher (2010) noted that encouraging close reading by assigning large chunks of text then assigning questions or activities that require students to reread short passages several times leads to deeper understanding. This strategy can be encouraged in the digital learning environment by focusing discussion on a specific part of the text, asking students to make personal connections, or by asking students to respond to their peers' posts with support from the literature. To make learning meaningful and relevant in this manner, teachers require strong pedagogical knowledge.

In addition to the knowledge required to promote quality reading skills, teachers require pedagogical knowledge in instructing students to use technology to make ideas transparent. To do so, students should be encouraged to link their ideas related to the text to others' through pictures, videos, and podcasts available in the digital-learning environment. As this extension

occurs, critical thinking is facilitated and close reading and reflection are required (Leu et al., 2015; Hutchison & Colwell, 2014; Johnson, 2010).

Content Knowledge

As teachers implement excellent pedagogy in extending learning through technology, a strong understanding of the reading content is imperative (Brueck & Lenhart, 2015; Leu et al., 2015). As Ellison and Yuehua (2008) noted, online discourse will not automatically increase student learning without sound instruction in the content area. Therefore, it is necessary for educators to support the authentic reading and writing experiences, provided through an online forum, with skills lessons in phonics, comprehension, and vocabulary (Eckland & Lamon, 2008).

Systematic instruction in phonological awareness, phonics, comprehension, fluency, and vocabulary is noted as a necessary element of effective reading instruction for young children by the National Reading Panel (2000). Beyond providing this systematic instruction, exemplary primary and intermediate grade teachers share several other characteristics. These characteristics include providing numerous books for children to read and explore, exposing children to narrative and informational texts daily, sharing their comments related to reading and allowing students to do the same, and making efforts to meet the individual needs to the students (Pressley, Rankin, & Yokoi, 1996). It is important to note that while many of these opportunities can be provided to students, through online discourse, they should be accompanied by solid instruction in the content area, as well (Brueck & Lenhart, 2015; Leu et al., 2015).

Summary

Technology integration in education serves as a means to make school more relevant and engaging for students (Duncan, 2010). This mindset applies to digital writing and online discourse as these tools provide opportunities for students to create and interact with text in

meaningful ways. In doing so, students have the opportunity to evaluate and integrate information from multiple sources as they construct meaning of material (Zawilinski, 2009). As a result, students are motivated to achieve as they gain understanding through authentic learning experiences (Swanson & Legutko, 2008).

Motivation is an important factor in literacy learning (Logan, Medford & Hughes, 2011). Without motivation to read, students will not reach their maximum potential even as they receive effective reading instruction. This is particularly true for young adolescents who prefer interactive participatory models of teaching (Batchelor, 2012). One such interactive model is blogging in response to literature.

Blogging, in response to literature, supports increased engagement, an improved sense of community, and opportunities for critical thinking (Albaugh, 2013). As students blog about text they are motivated to contribute to the discussion because the online forum makes them accountable to a wide audience. Peer collaboration is also a motivating factor in blogging as students have many opportunities to contribute to the discussion in the online forum. As students read their classmates' posts, they have an opportunity to see a variety of perspectives which may challenge them to expand their thinking. Considering multiple perspectives offers an opportunity for students to synthesize information which may help students develop critical thinking related to the topic.

Social-Constructivist learning theory principles are supported in the online learning environment. Opportunities for peer collaboration, reciprocal teaching, and natural scaffolding occur as students read and respond to text in the blogging forum. These elements of social constructivism, supported through the blogging forum, offer opportunities for students to read, write, and think from a critical perspective (McLaughlin & DeVogd, 2004). As students

collaborate to discuss text, there are opportunities to advance their individual learning as well as the mutual understanding of the group. To facilitate such learning experiences in the blogging forum, educators must rely on technology, pedagogical, and content knowledge (Mishra & Kohler, 2010).

In Chapter 3, the research design used to conduct the study will be described. The sample and response roles will be defined, and the choice of the mixed-methods design will be explained. Data collection procedures will be outlined, and data analysis procedures used in testing each research question will be described.

CHAPTER III

METHODOLOGY

In this chapter, the research design used to conduct the study will be described. The purpose of this study was to determine whether blogging in response to literature influenced reading motivation, sense of classroom community, or reading comprehension. The study compared the reading motivation, sense of classroom community, and reading comprehension of fourth grade students who responded to literature circle prompts on a blog and engaged in online discussion to those students who responded traditionally, with paper and pencil, and then met face-to-face to discuss. Surveys measuring reading motivation and classroom community were administered before beginning the novel and completing literature circle work and at the conclusion of reading the assigned novel upon completion of literature circle responses. Post-test comprehension scores were also collected from all participants. In the quantitative phase of this study, data were collected and analyzed to answer the following research questions:

Question 1:

How is motivation affected as fourth grade students respond to an assigned text through blogging as opposed to responding traditionally, using pencil and paper, and meeting face-to-face to discuss?

Question 2:

How is the sense of classroom community affected as fourth grade students respond to an assigned text through blogging as opposed to responding traditionally, using pencil and paper, and meeting face-to-face to discuss?

Question 3:

How are post-test reading comprehension scores affected as fourth grade students respond to an assigned text through blogging as opposed to responding traditionally, using pencil and paper, and meeting face-to-face to discuss?

Qualitative data were also collected through teacher and focus group student interviews at the conclusion of the study. This data helped to answer the research questions and gain insight into the quantitative data.

Research Design

Mixed-Methods Design

A mixed-method approach was selected for this study. A mixed-methods approach represents a social science research approach that encourages integration of two major methodological approaches: ‘quantitative’ and ‘qualitative’ (Symonds & Gorard, 2010). It is described by Johnson and Onwuegbuzie (2004) as “the class of research where the researcher mixes or combines quantitative and qualitative research techniques, methods, approaches, concepts or language into a single study” (p. 17).

This combination of quantitative and qualitative methods has noted advantages and disadvantages. Those researchers who advocate a mixed-methods approach assert that using both forms allows the researcher to generalize results, as is often done in quantitative studies, while gaining a deeper understanding of the research topic through qualitative procedures (Hanson, Creswell, Plano-Clark, Petska, & Creswell, 2005). Researchers may find a mixed-methods design difficult to conduct, however, as it is necessary to be familiar with both qualitative and quantitative methods (Creswell, 2003). In addition, the sample size used in a mixed-methods study should be considered, as oftentimes, a sample studied through qualitative

means is not large enough for quantitative studies (Collins, Onwuegbuzie, & Jiao, 2006). After considering the advantages and disadvantages, a mixed-methods design was determined to be best suited for this study.

The research questions were designed to determine whether responding to literature in a blogging forum influenced reading motivation, sense of classroom community, or reading comprehension among fourth grade students. Drawing conclusions about reading motivation, sense of classroom community developed through blogging literature response, and reading comprehension was a goal for the study. The use of descriptive and inferential statistics as well as coding of qualitative responses allowed the researcher to gain a better understanding of the research topic than if only quantitative or qualitative methods had been used.

Procedures

A two-phase, sequential mixed-methods design was employed in this study. In the first phase, t-tests were used to compare the mean scores representative of the students' perceptions of reading motivation and classroom community before completing the assigned reading and response and upon completion of the assignment and discussion. The mean scores of the blogging and traditional groups' perceptions of reading motivation and classroom community were compared at the conclusion of the study as well. The instruments used to collect data were Gottfried's (1986) Children's Academic Intrinsic Motivation Inventory: Reading subject items and Rovai's (2004) Classroom Community Scale (Appendix A). T-tests were also used to compare post-test comprehension scores on the Accelerated Reader comprehension test for the novel *Frindle* for both the blogging and traditional response groups.

Focus group interviews were subsequently conducted with volunteer students to gain insight about the factors that influenced their reading motivation, sense of classroom community,

and reading comprehension throughout the study. A teacher interview was also conducted at the conclusion of the study to gain further insight into the students' reading motivation, sense of classroom community, and reading comprehension. The interview protocol (Appendix B) used in this study was piloted with fourth grade students and a teacher who were not included in the study.

During the pilot study, the interview protocol was streamlined due to the repetitiveness of some questions. The teacher interview questions were narrowed from eight to five questions, and the student questions were narrowed from twelve to eight questions. The questions that were retained for the current study were not changed or reworded as the responses given during the pilot study related to the topics that the questions were created to address.

Setting

Research was conducted at an elementary school located in western Pennsylvania in a suburb of Pittsburgh. The community in which the school is located is described on the school district website as being composed of “a rich blend of ethnic groups and a diversified economy.” There are 404 students enrolled in the school, which houses Kindergarten through grade six classrooms. The research was conducted exclusively in the school's three fourth grade classrooms. One teacher served as the facilitator for all of the assigned readings and literature response prompts. Students in each of the three fourth grade classrooms engaged in reading the novel, completing literature circle responses, and discussing the text during reading instruction time each day.

In the reading instruction classroom, students from each of the grade four classrooms completed pre-treatment reading motivation and classroom community surveys during their reading instruction time. The surveys were administered by the researcher to each of the three

classes, and all items were read aloud to each group. After finishing the novel and completing all five literature circle response prompts and related discussions, students completed post-treatment reading motivation and classroom community surveys in the reading instruction classroom. Again, the surveys were administered by the researcher, and all survey items were read aloud to each of the grade four classes. At the conclusion of the study, students took the reading comprehension test for the assigned novel in the computer lab during their classes' designated computer lab times. The comprehension test items were not read aloud, and comprehension test questions were completed independently by the students.

Teacher/facilitator and student focus group interviews were conducted at the conclusion of the study. The teacher interview was held in the reading instruction classroom at a time when the students were out of the room for a related arts class. Student focus group interviews were conducted in a conference room at the school. The conference room was located within the school office and was therefore quiet and secluded to ensure confidentiality. Two focus group interviews were conducted. One group contained eight students while the other contained seven students. Both focus group interviews were conducted in the same day.

The Sample

To complete the research, data regarding reading motivation, sense of classroom community, and reading comprehension were collected and analyzed as fourth grade students completed literature responses using online and traditional formats. This analysis was done by first identifying participating classrooms at the fourth-grade level at a Pennsylvania elementary school, and permission to complete the study within the district was requested and received from the administration. Once the proposal was accepted, students and their parents were made aware of the benefits and risks of participation. Parental consent and student assent were sought. The

sample was comprised of 33 students in the participating classrooms who returned completed consent and assent forms.

Once the sample was established, participants were randomly assigned to the blogging or traditional response group using alternating numbers on an alphabetized list of participants. Both groups read the same novel and responded to the same prompts but differed in the response forum. The experimental group responded to the reading response prompts online using the Kidblog platform, while the control group responded in the traditional format using pencil and paper. Within the blogging forum, students completed and posted responses individually. Once posted, others in the experimental group viewed the completed responses, posted comments related to the material, and linked to relevant electronic media. Students in the control group completed responses individually within a literature response packet using pencil and paper and met with the traditional response group to discuss every other school day.

Literature Response

Reading of the assigned novel, *Frindle*, by Andrew Clements (1996), was divided into five sections. For each section, all students were assigned a literature circle role. First, students in the blogging group were assigned literature circle roles using the numbers one through five on an alphabetized list of participants in the blogging response group. The same procedure was repeated to assign literature circle roles to the traditional response group. The literature circle roles as described by Daniels (2002) and descriptions of each role are summarized in Table 1.

Table 1

<i>Literature Circle Roles</i>	
Literature Circle Role	Description
Summarizer	Identify key points in the assigned section of the reading and write a minimum of a paragraph summary.
Vocabulary Enricher	Identify at least five unknown words or words that are important to the reading. Define and explain why each was chosen.
Literary Luminary	Choose at least three sections of the reading that are of interest (funny, important, powerful, confusing, troubling, sad) to discuss. Provide a page and paragraph, as well as a short quote from the passage, and explain why each was chosen.
Connector	Write a paragraph, or draw or link a picture/video that connects to this section of the reading. It may be a personal connection or something that the reading reminded you of in recent or past events.
Illustrator	Draw or post a picture related to the reading and explain your choice.

All students were assigned each role one time for the five assigned sections of *Frindle*.

Therefore, by the conclusion of the study, all students completed every role in their assigned response group (blogging or traditional) one time each.

Data Collection

The initial source of data collection for this study was student surveys. The surveys were administered to all participants, in both the blogging and traditional response groups before beginning the assigned reading and literature responses. The same two surveys were administered again at the conclusion of the study, after the students had finished the assigned novel and all five literature circle responses. Questions regarding reading motivation were included in the Children’s Academic Intrinsic Motivation Inventory (CAIMI), while questions related to sense of classroom community were included on the Classroom Community Scale survey. Finally, comprehension post-tests were administered at the conclusion of reading and discussing the novel. Upon completion of the study, an interview was conducted with the teacher who facilitated the readings and literature response activity. Focus group interviews

were conducted with a sub-set of the participants at the conclusion of the study as well. The survey data and teacher/facilitator interview, along with student interviews with a sub-set of the sample, allowed for triangulation of the methodology.

Instrument Description

Two surveys were used as the main instruments in data collection along with the comprehension post-test and interview protocol. The first survey was the Children's Academic Intrinsic Motivation Inventory (CAIMI): Reading subject items, developed by Adele E. Gottfried (1985). This instrument was chosen to facilitate testing of the hypothesis that the blogging response group would experience a greater level of engagement and increased reading motivation. The survey used a Likert scale model, which asks participants to respond to a series of statements based on a limited range of possible answers. In this study, participants were asked to respond to a series of items related to reading motivation as to the extent that they found each to be true. The choices were strongly agree (SA), agree (A), neutral (N), disagree (D), or strongly disagree (SD). The survey consisted of 26 items for the reading subject area. Permission for use of the CAIMI in this study was requested and received from the publisher.

The Children's Academic Intrinsic Motivation Inventory (CAIMI) was specifically developed to measure academic intrinsic motivation of students in upper elementary grades through junior high (grades 4-8) (Gottfried, 1985). Therefore, the vocabulary and response format were appropriate for fourth grade students. As is noted in the CAIMI administration manual (1986), the instrument measures intrinsic motivation separately in the subject areas of reading, math, social studies, and science, and also provides a measure of general orientation toward school learning. It is noted in the manual that administration of only a certain subject or certain subjects of interest is appropriate, as there are five separate scales for scoring. Therefore,

the reading subject scale was an appropriate choice to measure the reading motivation of fourth grade students.

The second instrument used in the study was the Classroom Community Scale, developed by Alfred P. Rovai (2002). This instrument was selected to facilitate the testing of the hypothesis that the blogging response group would experience a greater sense of classroom community. The survey also followed a Likert scale model. In this study, participants were asked to respond to a series of 20 items related to sense of classroom community. The choices were strongly agree (SA), agree (A), neutral (N), disagree (D), or strongly disagree (SD). Permission to use the Classroom Community Scale in this study was requested and received from the author.

The Classroom Community Scale was developed to measure the sense of classroom community among graduate students who were enrolled in distance learning programs and has been found to be a reliable measure of connectedness and learning among that group (Rovai, 2002). Although initially designed to measure the sense of community among college-level students, Rovai (2002) notes that it can be used to measure classroom community in the traditional setting: “The Classroom Community Scale can be administered to other populations, to include students taking courses in a traditional classroom setting. The test instrument was not constructed to limit its use to a distance education population. A Flesch–Kincaid grade level score of 6.6 suggests that the test instrument can be easily understood by a wide range of student populations” (p. 208). The easy readability, along with read-aloud researcher administration, made it an appropriate instrument to measure classroom community in this study.

The third instrument used in this study was the reading comprehension post-test. This instrument was selected to facilitate the testing of the hypothesis that blogging, in response to

literature, would lead to greater understanding of the assigned text. The comprehension post-tests were accessed through Renaissance Place: a web-based, hosted platform that allows participating educational institutions to teach, assess and implement learning solutions in a cloud-based environment. As part of the program, teachers and students can access comprehension tests through the Accelerated Reader portion of the website. The Accelerated Reader comprehension tests consisted of 10 multiple choice items related to the comprehension of the assigned text.

The final instrument used in this study was the interview protocol for the teacher and student interviews. The protocol was developed by the researcher and was field-tested among fourth grade students and teachers who were not participating in the study.

Validity and Reliability of Instruments

As noted by Gottfried (1986) in the CAIMI administration manual, the CAIMI was developed in three stages:

In Study 1, an initial pool of 60 items was written. These items were subject to internal consistency analyses for the subject area and general scales.... From this study 38 items were retained. A goal of Study 2 was to increase the internal consistency reliability of the CAIMI scales. Hence, additional items were written which were consistent with those developed in Study 1.... An additional 84 items were added.... Study 3 employed the Study 2 version of the CAIMI. Results of reliability analysis replicated the findings of Study 2. (pp. 11-12)

Furthermore, the validity of the instrument has been tested and confirmed. Gottfried (1986) wrote, "Both positive and negative correlations were predicted and obtained, indicating convergent and discriminant validity of the CAIMI" (p. 13). Therefore, the CAIMI has been

found to be a valid and reliable measure of children's intrinsic motivation for reading, and use of items from this inventory was appropriate for the current study.

The Classroom Community Scale was developed and pilot tested by Rovai (2002). He conducted a study to develop and to field-test the Classroom Community Scale. The study was conducted to determine the instrument's validity and reliability for measure of sense of community in a learning environment. Field-test data were collected from 375 students enrolled in 28 different courses offered for graduate credit via the Blackboard e-learning system by a private university. It was concluded that the Classroom Community Scale is a valid and reliable measure of classroom community and that this instrument yields two interpretable factors, connectedness and learning.

Once quantitative and qualitative data were collected, the results were determined through data analysis. The data analysis procedures will be described in the next section.

Data Analysis

Data analysis consisted of examining survey results, analyzing student interview data, and analyzing the teacher's responses to interview questions. Data were analyzed using three categories: survey analysis; student interview analysis; and teacher interview analysis. Tables 2, 3, and 4 summarize the three research questions, the instrument and survey items that provided the data related to those questions, and the data analysis performed to answer the research questions.

Table 2

Research Question 1: Data Analysis

Research Question	Instrument and Survey Items	Data Analysis
How is motivation affected as fourth grade students respond to an assigned text on a blog as opposed to responding traditionally, using pencil and paper?	<p>Children’s Academic Intrinsic Motivation Inventory: Reading subject area items</p> <p>Teacher Interview Protocol: Questions 3 and 5</p> <p>Student Interview Protocol: Questions 1, 2, 3, 4, and 8</p>	<p>Descriptive Statistics:</p> <ul style="list-style-type: none"> • Find means of pre- and post-survey scores for both traditional and online response groups • Test for normal distribution <p>Causal Comparative Statistics:</p> <ul style="list-style-type: none"> • Test for homogeneity of variance • T-test to compare the pre- and post-test mean scores for each group • T-test to compare the mean post-test scores of both groups

Table 3

Research Question 2: Data Analysis

Research Question	Instrument and Survey Items	Data Analysis
How is the sense of classroom community affected as fourth grade students respond to an assigned reading in an online forum as opposed to responding traditionally, using pencil and paper?	<p>Classroom Community Scale</p> <p>Teacher Interview Protocol: Questions: 1, 2, and 4</p> <p>Student Interview Protocol: Questions: 1, 3,4, 5, 6 & 7</p>	<p>Descriptive Statistics:</p> <ul style="list-style-type: none"> • Find means of pre- and post-survey scores for both traditional and online response groups • Test for normal distribution <p>Causal Comparative Statistics:</p> <ul style="list-style-type: none"> • Test for homogeneity of variance • T-test to compare the pre- and post-test mean scores for each group • T-test to compare the mean post-test scores of both groups

Table 4

Research Question 3: Data Analysis

Research Question	Instrument and Survey Items	Data Analysis
What is the effect on post-test comprehension scores of making on-going literature responses in an online forum, rather than traditionally, using pencil and paper, throughout the reading?	Accelerated Reader Comprehension Post-tests	Descriptive Statistics: <ul style="list-style-type: none"> • Find the mean comprehension scores on both novel post-tests • Test for normal distribution Causal Comparative Statistics: <ul style="list-style-type: none"> • Test for homogeneity of variance • T-test to compare the post-test comprehension scores of the traditional and blogging response groups

Summary

In this chapter, the methodology used in conducting the research for this study was described. First, the choice of the mixed-methods design was explained. Next, the sample and response roles were defined. Then, the data collection procedures were outlined. Finally, the data analysis procedures used in testing each research question were stated. In the next section, the results of the study will be discussed.

CHAPTER IV

RESULTS

This study compared the reading motivation and sense of classroom community of fourth grade students who responded to literature circle prompts on a blog to those students who responded traditionally, using pencil and paper. Reading comprehension was also measured and compared between the blogging and traditional response groups. Surveys measuring reading motivation and classroom community were administered before beginning literature circle work and at the conclusion of reading the novel and completing literature circle responses. Post-test comprehension scores were also collected from all participants.

In the quantitative and qualitative phases of this study, data were collected and analyzed to answer the following research questions:

Question 1: How is reading motivation affected as fourth grade students respond to an assigned text through blogging as opposed to responding traditionally, using pencil and paper?

Question 2: How is the sense of classroom community affected as fourth grade students respond to an assigned text through blogging as opposed to responding traditionally, using pencil and paper?

Question 3: What is the effect of responding to literature on a blog as compared to responding traditionally, using pencil and paper, on post-test reading comprehension scores?

Qualitative data were also collected through teacher and student interviews at the conclusion of the study. Results of both the quantitative and qualitative phases are summarized in this chapter.

Quantitative Results

To investigate research questions one and two, paired samples t-tests were used to compare the mean scores of the blogging and traditional groups on the CAIMI and Classroom Community Scale. Both surveys were administered before engaging in the reading and literature circle responses and after students had read the novel and had completed all five literature circle response roles. Additionally, an independent samples t-test was used at the conclusion of the study to compare the post-treatment scores of the blogging and traditional groups on both the CAIMI and Classroom Community Scale. Finally, to compare the reading comprehension of both groups, an independent samples t-test was used to determine any difference in the Accelerated Reader comprehension post-test scores between the blogging and traditional groups. Before summarizing the quantitative results, the assumptions for the use of t-tests are reviewed below.

Assumptions for Use of T-Tests

Several assumptions must be met to rely on any statistical significance detected through the use of a t-test (Howell, 2008). First, random and independent sampling of the data is necessary. In this study, students were randomly assigned to the blogging or traditional groups using alternating numbers on an alphabetized list of participants; therefore, this assumption was met. The next assumption to be met was that the data collected were either interval or ratio. The surveys administered were both scored using a Likert scale on which strongly agree, agree, neutral, disagree, and strongly disagree responses were assigned values. While it is uncertain that each level of response was proportionately higher or lower than its neighbor, scores of 1-5 were assigned to the CAIMI responses and scores of 0-4 were assigned to the Classroom Community Scale; therefore, interval data were assumed for this study.

The final two assumptions, normality and homogeneity of variance, were satisfied by running descriptive statistics using SPSS. Through this analysis, it was found that the data were normally distributed on the Classroom Community Survey pre- and post-tests. The Shapiro-Wilk significance scores were both greater than .05 with the pre-test score, $p=.060$, and the post-test score, $p=.055$, indicating normal distribution.

The CAIMI scores, however, were not normally distributed. The Shapiro-Wilk scores for the pre-tests and post-tests were $p=.001$ and $p=.004$, respectively. Since the significance scores were not greater than .05, normal distribution cannot be assumed for this data. As a result, a non-normal Wilcoxon signed rank test was considered for this set of data, in addition to the t-test (if the t-test results were significant) to ensure validity. In looking at the histograms of the data (Figures 1 and 2), a very low score outlier was most-likely the reason for the lack of normality. This assertion was supported by the skewness and kurtosis statistics. The skewness statistics fell within -2 and 2 standard deviations for both the CAIMI pre-test and post-test scores, which was an acceptable range for normality (Tabachnick & Fidell, 2007). A pre-test skewness statistic of -1.673 (SE = .414) and a post-test skewness statistic of -1.451 (SE= .414) were calculated for CAIMI surveys. These statistics suggest a normal distribution. The kurtosis statistics were outside of the -2 and 2 standard deviations, however, on both the before and after surveys; therefore, normal distribution could not be assumed as mentioned above.

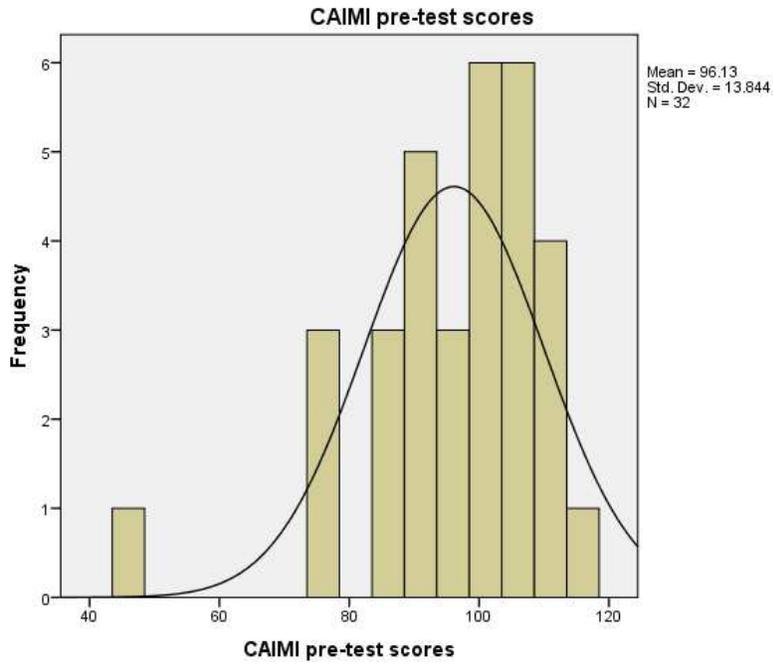


Figure 1. Histogram of CAIMI pre-test scores.

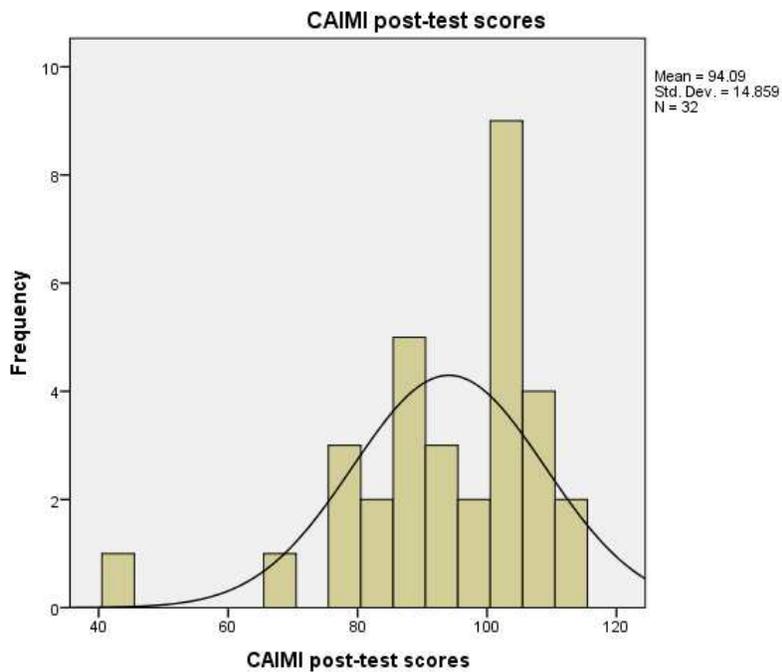


Figure 2. Histogram of CAIMI post-test scores.

To determine if the data met the assumption of similar error variances across groups to compare post-test scores using an independent t-test, Levene's test was conducted. Levene's test is a statistical procedure that compares error variances across groups. If Levene's test is significant, this assumption is violated (Leech, Barrett & Morgan, 2006). The Levene's tests showed no significant differences in error variances across groups on the Classroom Community Scale, $F(1, 30) = .319, p=.296$. Results were similar for the CAIMI, $F(1,30) = .795, p=.380$. Since significance values were greater than .05 for both groups, homogeneity of variance was assumed. Ensuring that the data met the above assumptions for the use of t-tests allowed for reliable interpretation of the results summarized in the next section.

Reading Motivation of the Blogging and Traditional Groups

Research Question 1: How is reading motivation affected as fourth grade students respond to an assigned text through blogging as opposed to responding traditionally, using pencil and paper?

Reading motivation of the students in the blogging and traditional groups was of interest in this study. To determine whether reading motivation increased within either of the groups, paired samples t-tests were conducted to compare the pre-test and post-test means on the CAIMI in each group. An independent samples t-test was also conducted to compare the post-test means of both blogging and traditional groups to determine any significant differences in reading motivation at the conclusion of the study. Table 5 below represents the descriptive statistics for the CAIMI pre- and post-test scores of the blogging group. Table 6 represents the descriptive statistics for the CAIMI pre- and post-test scores of the traditional group.

Table 5

Descriptive Statistics of the Blogging Group-CAIMI

		Paired Samples Statistics			
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	CAIMI pre-test scores	99.79	14	10.921	2.919
	CAIMI post-test scores	95.07	14	12.791	3.419

Table 6

Descriptive Statistics of the Traditional Group-CAIMI

		Paired Samples Statistics			
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	CAIMI pre-test scores	94.24	17	15.364	3.726
	CAIMI post-test scores	93.29	17	17.127	4.154

Results of the paired-samples t-test indicated that there was no significance between the means of the blogging group or the traditional group on the pre- and post-CAIMI surveys. The pre-test mean ($M = 99.79$, $SD = 10.92$) and post-test mean ($M = 95.07$, $SD = 12.79$) of the blogging group were not significantly different ($t(13) = 1.743$, $p = .105$). Likewise, the pre-test mean ($M = 94.24$, $SD = 15.36$) and the post-test mean ($M = 93.29$, $SD = 17.13$) of the traditional group did not show significant difference ($t(16) = .407$, $p = .689$). Additionally, an independent samples t-test comparing the post-test means of the blogging ($M = 95.07$, $SD = 12.79$) and traditional groups ($M = 93.29$, $SD = 17.13$) showed no significant difference in reading motivation scores between the groups as assessed by the CAIMI ($t(30) = .319$, $p = .752$). These results are summarized in Tables 7, 8, and 9 below.

Table 7

Comparison of Blogging Group Pre/Post Treatment CAIMI Scores

		Paired Samples Test							
		Paired Differences							
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Lower	Upper			
Pair 1	CAIMI pre-test scores - CAIMI post-test scores	4.714	10.118	2.704	-1.128	10.556	1.743	13	.105

Table 8

Comparison of Traditional Group Pre/Post Treatment CAIMI Scores

		Paired Samples Test							
		Paired Differences							
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Lower	Upper			
Pair 1	CAIMI pre-test scores - CAIMI post-test scores	.941	9.529	2.311	-3.958	5.841	.407	16	.689

Table 9

Comparison of Post Treatment CAIMI Scores between Blogging and Traditional Groups

		Independent Samples Test								
		<u>Levene's Test for Equality of Variances</u>				<u>t-test for Equality of Means</u>				
										95% Confidence Interval of the Difference
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
CAIMI post-test scores	Equal variances assumed	1.132	.296	.319	30	.752	1.706	5.342	-9.203	12.615

The statistical analysis of the CAIMI pre-test and post-test scores of the blogging and traditional group suggested that reading motivation did not significantly increase or decrease in either group. Therefore, blogging in response to literature had no effect on the reading motivation of the students in this study. Similarly, reading motivation was not affected by students responding traditionally to literature using pencil and paper. Finally, there was no difference in reading motivation between the blogging group and the traditional response groups at the conclusion of the study. Therefore, the quantitative results for research question one show that reading motivation of all students was relatively unaffected throughout the study. The quantitative results for research question two are summarized in the next section.

Sense of Classroom Community in the Blogging and Traditional Groups

Research Question 2: How is the sense of classroom community affected as fourth grade students respond to an assigned text through blogging as opposed to responding traditionally, using pencil and paper?

Sense of classroom community among the students in the blogging and traditional groups was also of interest in this study. To determine whether the sense of classroom community increased within either of the groups, paired samples t-tests were conducted comparing the pre-test and post-test means on the Classroom Community Scale for each group. An independent samples t-test was also conducted to compare the post-test means of the blogging and traditional groups to determine any significant differences in classroom community at the conclusion of the study. Table 10 below represents the descriptive statistics for the Classroom Community Scale pre- and post-test scores of the blogging group. Table 11 represents the descriptive statistics for the Classroom Community Scale pre- and post-test scores of the traditional group.

Table 10

Descriptive Statistics of the Blogging Group-Classroom Community Scale

		Paired Samples Statistics			
		Mean	N	Std. Deviation	Std. Error Mean
Pair 2	Classroom Community pre-test scores	59.50	14	9.525	2.546
	Classroom community post-test scores	56.14	14	12.769	3.413

Table 11

Descriptive Statistics of the Traditional Group-Classroom Community Scale

		Paired Samples Statistics			
		Mean	N	Std. Deviation	Std. Error Mean
Pair 2	Classroom Community pre-test scores	58.71	17	11.836	2.871
	Classroom community post-test scores	55.24	17	17.768	4.309

Results of the paired-samples t-test indicated that there was no significance between the means of the blogging group or the traditional group on the pre- and post-Classroom Community Scale surveys. The pre-test mean ($M = 59.50, SD = 9.53$) and post-test mean ($M = 56.14, SD = 12.77$) of the blogging group were not significantly different ($t(13) = 1.203, p = .250$). Likewise, the pre-test mean ($M = 58.71, SD = 17.77$) and the post-test mean ($M = 55.24, SD = 17.77$) of the traditional group did not show significant difference ($t(16) = 1.245, p = .231$). Additionally, an independent samples t-test comparing the post-test means of the blogging ($M = 56.14, SD = 12.77$) and traditional groups ($M = 55.24, SD = 17.77$) showed no significant difference in reading motivation scores between the groups as assessed by the Classroom Community Scale ($t(30) = .319, p = .752$). The results are summarized in Tables 12, 13, and 14 below.

Table 12

Comparison of Blogging Group Pre/Post Treatment Classroom Community Scores

		Paired Samples Test								
		Paired Differences						t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference					
Pair					Lower	Upper				
2	Classroom Community pre-test scores/ Classroom community post-test scores	3.357	10.441	2.791	-2.671	9.386	1.203	13	.250	

Table 13

Comparison of Traditional Group Pre/Post Treatment Classroom Community Scores

		Paired Samples Test							
		Paired Differences							
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Lower	Upper			
Pair 2	Classroom Community pre-test scores/ Classroom community post-test scores	3.471	11.495	2.788	-2.440	9.381	1.245	16	.231

Table 14

Comparison of Post Treatment Classroom Community Scores between Blogging and Traditional Groups

		Independent Samples Test								
		Levene's Test for Equality of Variances				t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Classroom community post-test scores	Equal variances assumed	.795	.380	.319	30	.752	1.765	5.535	-9.540	13.070

The statistical analysis of the data showed that blogging in response to literature had no effect on the sense of classroom community for the blogging group. Furthermore, there was no

change in the sense of classroom community within the traditional literature response group from the beginning to the end of the study. Finally, the comparison of the post-treatment Classroom Community scores for the blogging and traditional groups showed no significant difference in the sense of classroom community between the two response groups. Therefore, the quantitative results for research question two suggest that the sense of classroom community was relatively unaffected for all participants throughout the study. The quantitative results for research question three are summarized in the next section.

Reading Comprehension in Blogging and Traditional Groups

Research Question 3: What is the effect of responding to literature on a blog as compared to responding traditionally, using pencil and paper, on post-test reading comprehension scores?

Reading comprehension among the students in the blogging and traditional groups was measured by collecting Accelerated Reader comprehension post-test scores for the novel *Frindle*. An independent samples t-test comparing the post-test means of the blogging group (M=8.75, SD=1.58) and the traditional group (M=8.70, SD=1.16) showed no significant difference in comprehension scores between the two groups as assessed by the Accelerated Reader comprehension test for the novel ($t(16) = .077, p = .939$). Table 15 summarizes the descriptive statistics of the post-test comprehension scores of both the blogging and traditional group, while Table 16 compares the mean comprehension scores of both groups.

Table 15

Descriptive Statistics of the AR Test Scores

Group Statistics					
	Group	N	Mean	Std. Deviation	Std. Error Mean
Comprehension post-test	Blogging	8	8.75	1.581	.559
	Traditional	10	8.70	1.160	.367

Table 16

Comparison of Post-Test Comprehension scores of the Blogging and Traditional Groups

		Independent Samples Test								
		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Comprehension post-test	Equal variances assumed	1.338	.264	.077	16	.939	.050	.645	-1.318	1.418

The comparison of the post-test comprehension scores showed no significant difference. The results showed that there was not a statistically-significant difference in reading comprehension between the students assigned to the blogging group and those assigned to the traditional group. Therefore, there was no difference in reading comprehension between the groups.

Summary of Quantitative Results

Although there were no statistically significant results that indicated increased reading motivation, an increased sense of classroom community, or increased reading comprehension based on the blogging or traditional response forum, data from the teacher and student interviews suggested that blogging was valuable in increasing student motivation, building a learning community, and increasing critical thinking. These themes, along with others that emerged, are explored in the qualitative results section.

Qualitative Results

In reviewing the data, it should be noted that the mean scores reflective of reading motivation and sense of classroom community decreased, although not significantly, for both the blogging and traditional groups throughout the study. Teacher and student interviews conducted at the conclusion of the study gave insight as to why this may be the case. The interviews also suggested that participating in the project had positive and negative aspects that may be considered in future research. Therefore, the qualitative results not only addressed research questions one, two, and three but also helped in interpreting the quantitative results. Results of the qualitative portion of the study are summarized below.

Teacher/Facilitator Interview

The teacher who was the classroom facilitator throughout the study had taught at the elementary level for 11 years. She earned a Bachelor of Science degree in elementary education, as well as a technology specialist certificate and a Master of Science degree in instructional technology. The teacher/facilitator interview was conducted in the classroom at the conclusion of the study. Throughout the interview, responses were paraphrased and follow-up questions were asked. This method allowed for member checking and added validity to the responses. The teacher/facilitator interview questions addressed the themes of reading motivation and community-building among the traditional and blogging response groups.

Reading Motivation among Groups

Reading motivation was of interest as some students responded to the text on the blog while others responded traditionally, using pencil and paper. When asked about the reading motivation of both groups, the teacher noted that all of the students really enjoyed the book and were engaged in the process by the end of the study. One difference, however, was that students

in the blogging group would often access the blog outside of school even though it was not assigned. It was also noted that most participants in the study did not have Internet access, but used time in the after-school program to access literature circle posts and comment on classmates' work. The teacher suggested that this initiative was evidence of increased motivation, as it was not typical for students to engage in work outside of school that had not been formally assigned.

When asked to make closing comments about the experience, the teacher remarked that she would have never imagined that the students would produce the quality of work that was evidenced at the close of the literature circle unit based on where they began just six weeks prior. She again noted that once they got past the "bumpy" start, the literature circle unit and differing response groups was a wonderful learning experience for all. After witnessing the learning community developed through the project, she said that she plans to incorporate blogging as a means of literature response in upcoming school years. She also hopes to expand the use of blogging for purposes other than literature response in the future. The comments offered by the teacher offered insight into the reading motivation, sense of classroom community, and comprehension of the students in both response groups. Further results gathered from teacher/facilitator interview are summarized in the next section.

Community-Building among Groups

The teacher/facilitator interview brought to light that the literature circle experience was new to all students in the study. As a result, there was much frustration in the beginning on the part of the teacher and the students as they became familiar with the process. She reported that the students became frustrated learning and maintaining the expectations for literature circle jobs. The students in the blogging group also experienced frustration in learning to navigate the

blogging website. The teacher admitted to feeling overwhelmed as she was learning to manage the process. As time continued, however, they all became more comfortable working within the literature circles and began to enjoy it more. For the teacher, this meant releasing the idea that everything needed to go perfectly and “letting the kids do what they were capable of doing.” As the students in both groups were able to take ownership over the tasks, they really enjoyed the book and were able to work together to complete the literature circle tasks. When asked about the overall nature of community developed, the teacher stated that students in both the blogging and traditional groups had an opportunity to work with unfamiliar classmates. The diverse groups helped to build a sense of community with classmates that they may not have known well before the process. It was also noted that engaging in the literature circle work was “the best they’ve worked together all year.”

The sense of classroom community among blogging and traditional group members was of particular interest in this study. When asked to differentiate differences in community-building among blogging group members and traditional group members, the teacher noted that the blogging group seemed to work more closely. She attributed this sense of closeness to the fact that the traditional group completed a lot of independent work and only met to share periodically, whereas the blogging group members worked in close proximity and helped each other through the blogging process. She noted that the blogging group “really worked as a team and supported each other.” The teacher also liked the fact that in the blogging group, “everyone could see the same thing at the same time,” whereas in the traditional group, there was only one piece of paper to be viewed by the group during their meetings. It was also mentioned that the blog offered more opportunities for students to engage with one another as they could access the

blogging content frequently. In contrast, the traditional group's response time was limited to the time set aside for classroom literature circle meetings.

Figures 3 and 4 below support the idea that blogging offers increased opportunities to contribute to the discussion. Figure 3 shows a paper and pencil summary that was shared during literature circle time. Responses to this summary were limited to the literature circle discussion time for this particular section. Figure 4 shows a blogging summary on which a student commented four days later. It should also be noted that the blogging summary was written outside of reading class; the student took the initiative to complete the work on her own.

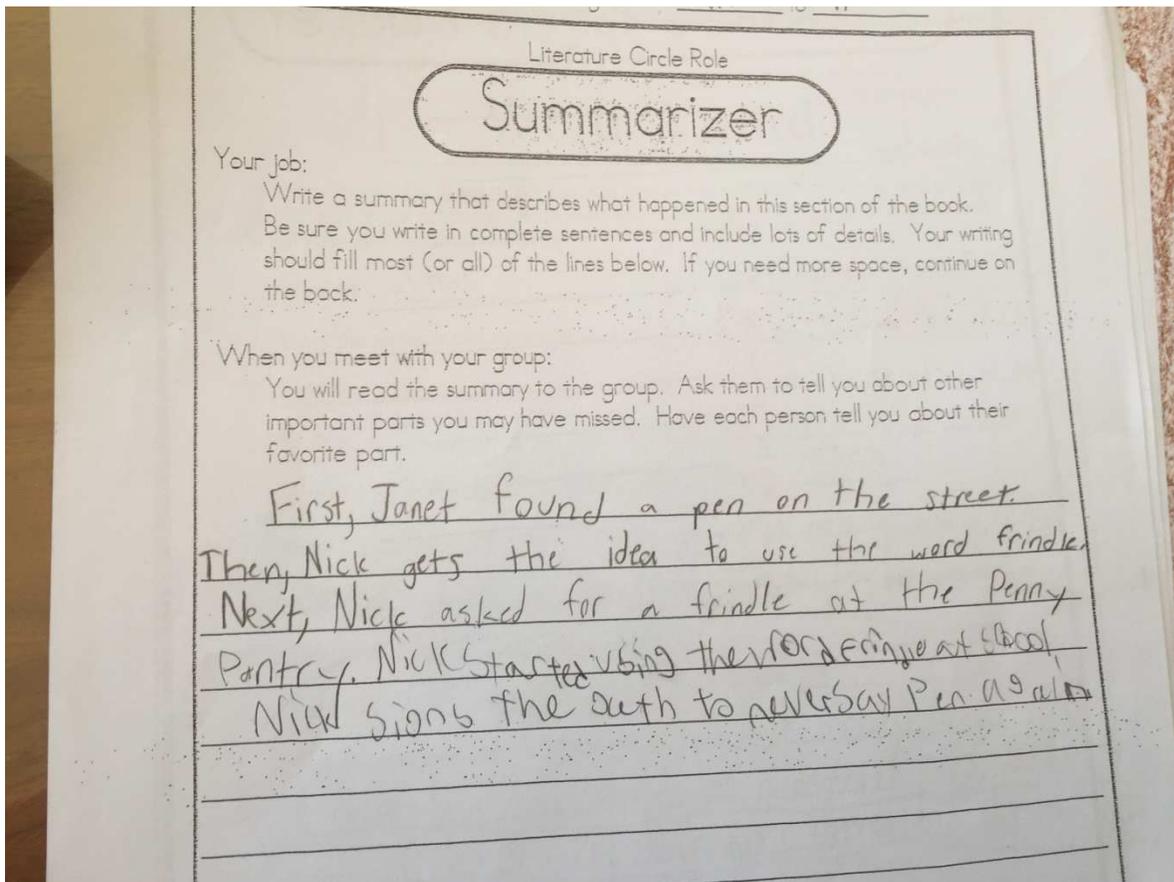


Figure 3. Traditional response summary of assigned reading.

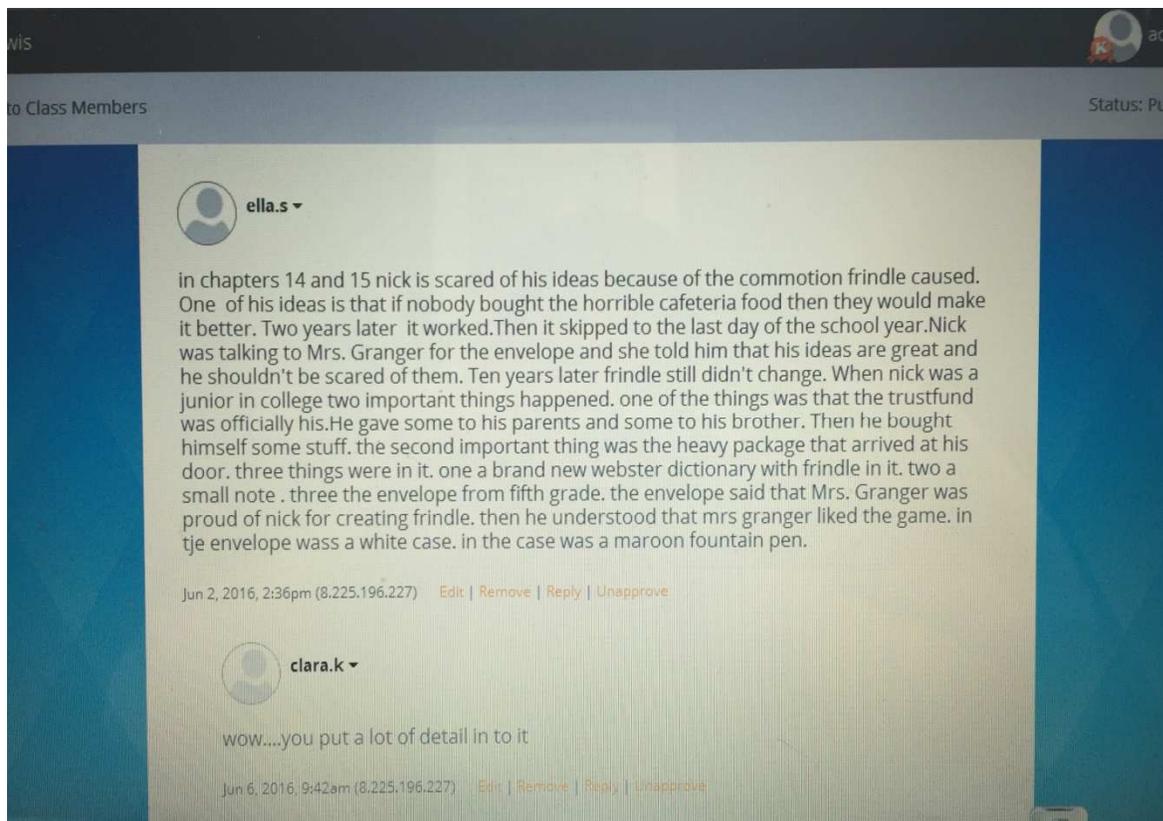


Figure 4. Blogging response summary of assigned reading.

As is evident in Figures 3 and 4, the online summary is more detailed. It is also important to note that the online discussion lasted over the span of several days. These figures support the idea that blogging offered increased opportunities for students to engage with one another and develop a sense of community. In the next section, results from the student interviews are summarized.

Student Interviews

Student interviews were conducted at the conclusion of the study to gain insight into the reading motivation and sense of classroom community experienced by the blogging group. Two focus-groups of students who had been assigned to the blogging group were interviewed. The first group consisted of eight students, and the second group contained seven. Both interview groups consisted of male and female students. Interview groups were assigned based on student

homeroom due to availability at certain times during the day. All student interviews were conducted in the school conference room at the conclusion of the study. When asked about the pros and cons of responding on a blog, several themes emerged. Among the features students liked best about blogging were the technology components, ease of use, immediate feedback, and ability to self-pace.

Students especially appreciated the technology components offered on the blogging platform. One student stated, “The computer helps you fix things, and if you mess up it says so.” Another added, “If you mess up, the computer says that you messed up.” A third mentioned, “If you have sloppy handwriting, it fixes that for you.” Two students also mentioned that they liked the “spell-check” feature available on Kidblog. Another noted, “the best part of the blog is that once you upload something you can’t lose it or forget it.” These comments support the idea that blogging makes communicating thoughts an easy process.

The feedback feature available on the blog was also discussed during the student interviews. One student stated, “If you did something and it’s a good job, you can see it right away. You can just scroll down and write it, if you want to tell someone they did well. You can also comment on the comments. I like that idea.” Another student added that he liked reading the comments offered by his classmates; three others agreed with this statement. These responses support the idea that students in the blogging group appreciated the immediate feedback made available in the comment section.

In relation to having the ability to self-pace, one student commented that “it was easier to get my thoughts out on the computer where there wasn’t so much commotion. I could take time to think about it and then post when I’m ready.” Another stated that “the blog made it easier to add your thoughts when you had them. On the computer, you can just press a button and it will

let you type again on the part you want.” These comments support the idea that students appreciated the ability to self-pace themselves within the literature discussion, adding their thoughts at a time that was comfortable and convenient for them.

When students were asked what they liked least about blogging in response to literature, technological difficulty was the overwhelming response. Comments such as “the computers were so slow” and “my post disappeared” were common responses. Seven out of the fifteen students interviewed mentioned slow computers being an issue, while four mentioned that they lost their work on the blog at some point throughout the process.

When asked about how long it took to become comfortable using the blog, responses varied. The one student who expressed comfort right away had acknowledged having blogging experience. All other student responses ranged from 15 minutes to a few days to become comfortable with blogging. Three students mentioned that they didn’t like it at first but later did as they gained blogging experience. One stated, “I didn’t like it at first, but then it was kind of fun. You can see what people write and it helps you make your own ideas.” Other interesting responses came from two students who said they liked it at first but grew to dislike it as other students began critiquing their work toward the end of the study. Consistent with Zawilinski’s (2009) research that stated blogging facilitates higher-order thinking, this comment suggests that critical thinking may have increased as students became more familiar with the process.

When asked to define community, students had a variety of ideas, and a few themes emerged. The first theme of working together was supported by three students in the interviews. The first two simply stated that community is “working with other people” and “you work together and don’t fight.” A third student gave an analogy about “putting stuff together.” She explained that in the outside community people work together to build “things” and that this idea

of building applies to classroom community as well. In the classroom, she explained, students “build work on top of each other and work together to make something creative and cool.” The idea that blogging supported working together and sharing thoughts within a learning community is supported in Figure 5 below. In the blog post, one student shared a personal connection that another student validated by sharing that a family member had a similar experience.

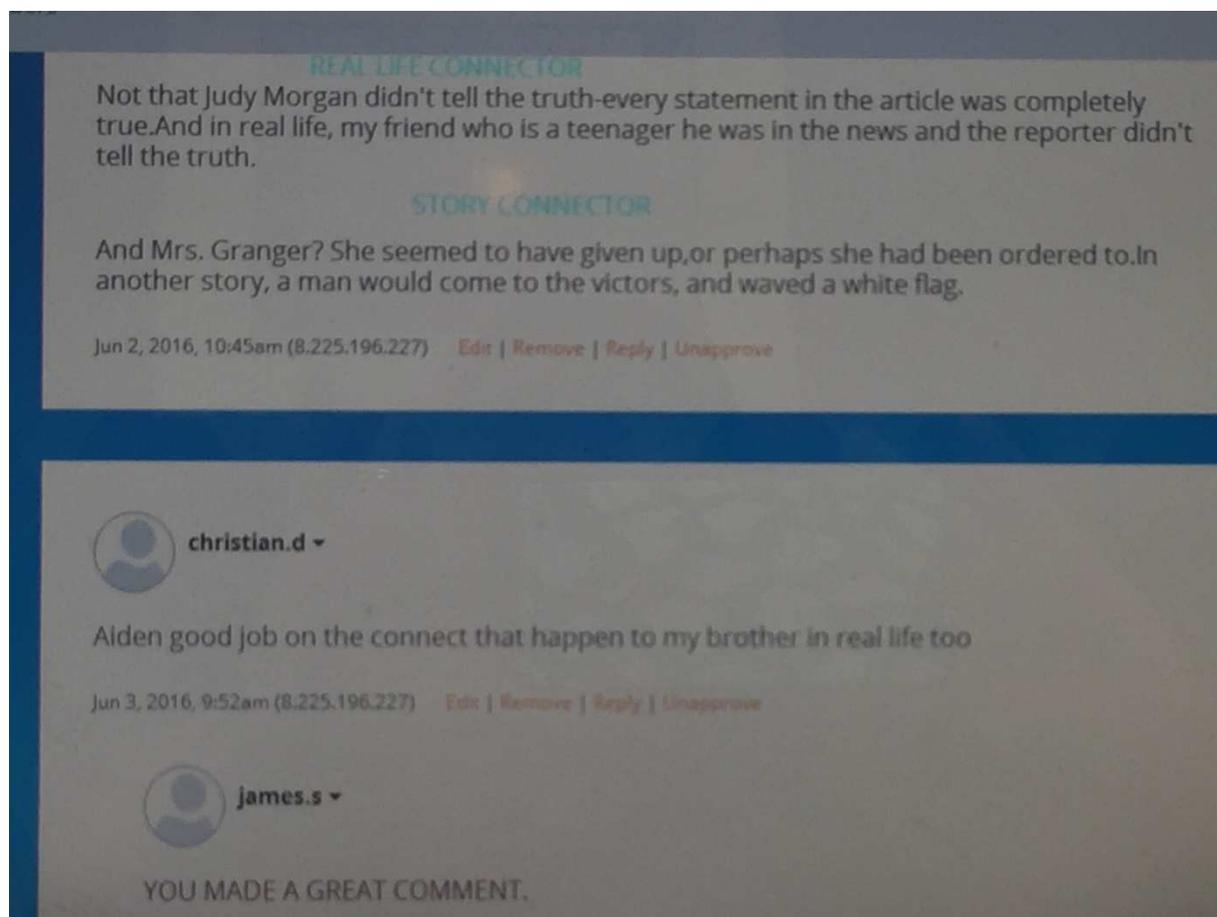


Figure 5. Blog post evidence of sharing experiences.

Helping each other was another theme that emerged when the students were asked to define community. One student stated that in a community, “everyone is nice and helpful” while another one noted that “everybody knows you and can help you if you’re sad or down.” A third student said that in a community, “one person can take a break if they’re out of ideas and the

others can pitch in.” A fourth student elaborated upon this response by explaining that “you usually have to fail to learn, but in a group, you don’t really have to fail at all.”

The final theme related to community that emerged from the interviews was the idea of overcoming adversity to reach a common goal. Two students spoke to the fact that they were able to work through disagreements to complete their literature circle work and further the learning of the group. One student defined community as a space in which “people are usually nice and sometimes mean, but that doesn’t mean that you can’t work together.” Another student noted that “sometimes partners may make you angry, but they can also help.” He further explained that he doesn’t like asking for help, and so participating in the blogging community was beneficial because he was offered help, through viewing others’ examples, without having to ask for it.

Based on these ideas of community, the students were asked whether they learned better when they felt a sense of community with their group members. All students agreed with this. Their reasoning related to helping one another, gaining ideas from group members, and accomplishing more in less time. Two students responded that they felt a sense of classroom community because they helped each other. One stated, “If you’re stuck, the group can help,” while another explained, “Your partner may know what’s wrong if you can’t figure it out.” Several students attributed their sense of classroom community to learning from one another. Comments such as blogging offered “more variety of ideas” and “there are a bunch of ideas that you can put together to make a good answer” support this theme. Similarly, a third student explained that “by yourself, you only have so many ideas, but working together allows you to put your ideas together to learn something new.” Finally, two students related their sense of classroom community to the amount of work they were able to accomplish by working together.

One stated that working in a community “cuts time down,” while another added that in doing so, the group was able to “accomplish more.”

Final comments related to blogging in response to literature included an eagerness to do more blogging in school and an interest in including more classes on the blog. There was particular interest among the eight students in one interview group to expand their blogging audience to classes outside of the school building. Several students reiterated the fact that technology made it easier for them to communicate their ideas and that they would like to expand the purposes for which the blog is used. Fourteen out of the fifteen students interviewed said they would like to continue to use the blogging platform for future school assignments. One student also mentioned that it helped build confidence to see others’ work on the blog and that it was an easy way to communicate with the group. She explained that blogging helped her realize that “you can work together and you don’t have to be alone and be all angry and not want to do it. You can work together and have more confidence in what you can do.” These comments were related to reading motivation and sense of classroom community and therefore helped to answer research questions one and two.

Summary

The quantitative and qualitative results of the study were summarized in Chapter IV. The statistical analysis showed no significant differences in reading motivation, sense of classroom community, or reading comprehension between the blogging and traditional groups. Likewise, there were no significant differences between reading motivation or sense of community from the beginning of the study to the end of the study for either group.

The teacher/facilitator interview suggested, however, that a sense of classroom community was developed among all participants and that the sense of classroom community

among the blogging group members was particularly strong. Reading motivation may have also been affected as students took the initiative to complete literature circle work outside of school even though it had not been formally assigned. This observation, along with mostly-positive comments from the blogging participants, suggested that further studies related to blogging, in response to literature, may be of interest. A discussion of the findings, conclusions from the results, limitations of the study, implications for classroom practice, and recommendations for future research will be included in Chapter V.

CHAPTER V

DISCUSSION, CONCLUSIONS, and RECOMMENDATIONS

This study compared the reading motivation and sense of classroom community of fourth grade students who responded to literature circle prompts on a blog to fourth grade students who responded traditionally, using pencil and paper. Surveys measuring reading motivation and classroom community were administered before beginning literature circle work and at the conclusion of the novel study and literature circle responses. Reading comprehension was also measured and compared between the blogging and traditional groups by analyzing post-test comprehension scores. Data collected in the quantitative phase of the study were analyzed to answer the following research questions:

1. How is reading motivation affected as fourth grade students respond to an assigned text through blogging as opposed to responding traditionally, using pencil and paper?
2. How is the sense of classroom community affected as fourth grade students respond to an assigned text through blogging as opposed to responding traditionally, using pencil and paper?
3. What is the effect of responding to literature on a blog as compared to responding traditionally, using pencil and paper, on post-test reading comprehension scores?

In addition to quantitative data, qualitative data were collected at the conclusion of the study through teacher and student interviews. Qualitative data were analyzed and coded for themes to gain insight into the research questions and to further interpret the quantitative results. In this chapter, quantitative results and qualitative findings will be discussed. For each research question, results will be summarized and related to theory. Implications for educators and possibilities for future research will be discussed.

Discussion and Conclusions

The quantitative data and qualitative findings should be considered in relation to past research regarding blogging and reading motivation, sense of classroom community, and reading comprehension. For each research question, the results of the current study will be summarized and discussed.

Research Question One: How is reading motivation affected as fourth grade students respond to an assigned text through blogging as opposed to responding traditionally, using pencil and paper?

This question was important to examine, as Gambrell (2010) asserted that students will not reach their full potential, even as they receive effective instruction in key areas of literacy, without reading motivation. It was hypothesized that blogging in response to literature would result in increased motivation, as relevant and authentic learning experiences have previously been linked to reading motivation (Cunningham & Allington, 2015). The quantitative results from this study suggested that blogging had no effect on the reading motivation of the participants, while the qualitative data suggested otherwise. There was not a significant difference between the reading motivation of the blogging and traditional response groups based upon the survey results. Reading motivation did not increase for either group from the beginning of the study to the end, and there was no significant difference between the reading motivation scores of the blogging and traditional response groups at the conclusion of the study. In contrast, the qualitative results found increased motivation within the experimental group. Students in the blogging group reported and at times demonstrated increased motivation despite the quantitative results suggesting otherwise.

In analyzing the quantitative data, it was noted that the reading motivation scores as measured by the Children's Academic Intrinsic Motivation Inventory did not differ significantly

between response groups. This finding was inconsistent with past studies that suggested that blogging resulted in increased intrinsic motivation as students took control of their learning in a technology-rich environment (Boyd, 2013; Churchill, 2009; Kan, Bonk, Kim, 2011; Myers, 2014). Therefore, possible reasons that blogging in response to literature had no effect on reading motivation were considered.

Wang and Hsua (2008) offered insight about the lack of increase in motivation of the blogging group. In their study of the use of blogs as a means to expand in-class discussion, factors affecting motivation were discussed. It was noted that blogging can be frustrating, especially for those who are not familiar with its procedures, and may be viewed as an extra burden. Students in the current study may have experienced such frustration, as most were unfamiliar with blogging and none had used a blog for academic purposes before participation in this study. Students also noted that technological difficulties were frustrating throughout the process. Learning to use the blog to post responses to the text and comment on the posts of their classmates may have seemed like extra work and could have, in turn, affected reading motivation of the blogging group.

In contrast to the quantitative results, some students did experience increased reading motivation based on the qualitative teacher and student interviews conducted at the conclusion of the study. The teacher interview brought to light that members of the blogging group often accessed the literature response blog outside of class time. She suggested that this initiative was evidence of increased motivation, as it was not typical for students to engage in work outside of class that hadn't been formally assigned. Therefore, while students in the blogging group may not have demonstrated increased reading motivation based on the quantitative results, some did engage with the text more often through the use of the blog. This increased engagement became

evident during the teacher interview and while reviewing the student blog posts. The dates and times noted on the student posts were often outside of reading class time as the discussions continued over the span of several days.

Focus group interviews conducted at the conclusion of the study suggested that blogging positively affected reading motivation as well. Themes such as ease of use, immediate feedback, and increased access to the discussion surfaced as students discussed the positive aspects of their blogging experience. These motivating factors resulted in increased engagement throughout the literature circle blogging discussion.

During the interviews, students explained that they appreciated the ease with which they could contribute their thoughts on the blog and respond to others' posts once they were familiar with the process. This finding is not surprising, as academic blogging has been found to quickly become a preferred activity once it is introduced (Anderson-Butcher et al., 2010; McGrail & Davis, 2009). The participants also noted that blogging afforded increased access to the discussion, as they could respond at a time that was convenient for them. This finding is consistent with past research, as Boling et al. (2008) noted increased participation by students who may be reluctant to participate in face-to-face discussions as a benefit of blogging because these students become more involved and motivated to participate using a blogging forum. Finally, students valued the immediate feedback from a wide audience that was available on the blog. This sort of interaction within the blogging forum has been found to result in authentic scaffolding that allows students to learn from one another and build understanding (Warshauer, 2008). Therefore, the ease of use, increased access to the discussion, and immediate feedback served as motivating factors in responding to the literature, according to the qualitative findings.

Research Question Two: How is the sense of classroom community affected as fourth grade students respond to an assigned text through blogging as opposed to responding traditionally, using pencil and paper?

The sense of classroom community was of particular interest in this study, as students' perceptions of classroom environments have been found to influence growth, development, and achievement (LaRocque, 2008). It was hypothesized that blogging, in response to literature, would result in increased sense of classroom community, as blogging has been found to help students feel more connected with their peers and has encouraged students to become more active participants within the learning community (Deng & Yuen, 2011). The quantitative results from this study suggested that blogging had no effect on the sense of classroom community among the participants, while the qualitative data suggested otherwise. There was not a significant difference between the sense of classroom community of the blogging and traditional response groups based upon the survey results. The sense of classroom community did not increase for either group from the beginning of the study to the end, and there was no significant difference between the classroom community scores of the blogging and traditional response groups at the conclusion of the study. The qualitative results, however, documented that the blogging group reported and at times demonstrated an increased sense of classroom community despite the quantitative results suggesting otherwise.

In analyzing the quantitative data, it was noted that the classroom community scores as measured by the Classroom Community Scale did not differ significantly between response groups. This finding was inconsistent with past studies that have suggested that blogging resulted in increased classroom community, as students had an opportunity to collaborate in an online forum (Ahmad & Lutters, 2011; Deng & Yuen, 2011; Yang & Chang, 2012). As a result, possible reasons for the lack of increase in the sense of classroom community among the

blogging group were considered. In reviewing the student interview results, it was noted that comments related to collaboration suggested there may have been some frustration among the students while working with peers in their literature response groups. One student said that group members were “mean,” while another stated that a group member “made him angry.” These comments were made regarding working together to overcome technological difficulties to complete the blogging assignments. Such disagreements among group members may have affected their perception of the online community and the overall sense of classroom community throughout the study.

In contrast to the quantitative results, based on the qualitative teacher and student interviews conducted at the conclusion of the study, some students in the blogging group did experience an increased sense of community. When asked to differentiate between the learning communities established in the blogging and traditional groups, the teacher/facilitator noted that the blogging group worked more closely together. She attributed this closeness to the fact that the traditional response group completed a lot of independent work and only met at pre-established times to discuss their responses. In contrast, she noted that the blogging group worked in close proximity and helped one another through the blogging process. She also mentioned that the blog offered more opportunities to engage with classmates, as the students were able to access the literature discussion more frequently than the traditional response group. Therefore, while students in the blogging group may not have demonstrated an increased sense of community based on the quantitative results, some did demonstrate increased engagement with classmates, while others developed an increased appreciation for working together throughout the study. These themes and others that emerged will be discussed in the student interviews section for research question two.

Focus group interviews conducted at the conclusion of the study suggested that blogging positively affected the sense of classroom community as well. Themes such as helping one another, gaining ideas from group members, and accomplishing more in less time surfaced as students discussed the benefits of working together in an online community. Based on these ideas, students were asked whether they learned better when they felt a sense of community with their group, and all interview participants agreed. This finding, along with the teacher's comment that "this is the best they've worked together all year," suggested that the sense of community was strengthened within the blogging group.

During the focus group interviews, students noted that they appreciated the ways in which they could interact and help one another throughout the blogging process. This finding is not surprising, as previous studies of blogging and literacy development acknowledge the collaborative promise of blogging in fostering socialization (Felix, 2007; Miller, 2011; Swanson, 2008; Zawilinski, 2009). The participants also noted that blogging offered a means of learning from one another. Albaugh (2013) further supported this finding, stating, "Though the interaction students have with each other through blogging is not face-to-face, their communication through technology creates opportunities to collaborate with their peers to form a deeper understanding of a text" (p.2). Finally, students reported an appreciation of the efficiency of the blog, as they felt they could accomplish more in less time. This finding is consistent with previous research, as it has been noted that students prefer technology-based assignments to written response (Anderson-Butcher et al., 2010). Moreover, students have been found to use more words and an expanded vocabulary when expressing their thoughts in blog posts (Berezina, 2011). Therefore, helping one another, gaining ideas from group members, and accomplishing

more in less time served as community-building factors in responding to literature on a blog, according to the qualitative findings.

Research Question Three: What is the effect of responding to literature on a blog as compared to responding traditionally, using pencil and paper, on post-test reading comprehension scores?

This question was important to examine, as fourth grade is a critical time for reading comprehension (Duke, 2000; Pappas, 1993). This period is often referred to as “the fourth-grade slump,” or a time when a pattern of academic failure develops. Unfortunately, the academic decline often continues through middle school and, for many students, beyond (Blanton, Wood & Taylor, 2007; Donahue, Daane & Grigg, 2003). Blanton, Wood & Taylor (2007) noted that better-performing schools tend to organize literacy lessons around meaningful learning communities that allow for extensive discussion of the material. Therefore, the study of how blogging affected reading comprehension among the participants was relevant.

It was hypothesized that blogging, in response to literature, would result in increased reading comprehension, as response in an online forum offers opportunities for students to mutually construct meaning and clarify their thinking by reading and responding to the posts of others (Zawilinski, 2009). This process benefits literacy learning, as students are more likely to experience reading growth as they engage in critical thinking while building understanding of the text (Peterson & Taylor, 2012; Taylor, Pearson, Peterson & Rodriguez, 2003). The quantitative results from this study suggested that blogging in response to literature had no effect on reading comprehension, as there was not a significant difference between the reading motivation of the blogging and traditional response groups. The reading comprehension scores of the blogging and traditional groups did not differ significantly according to the quantitative data. The qualitative results, however, found that the blogging group engaged in increased critical thinking

throughout the study. This finding suggested an increased level of reading comprehension among some participants.

In analyzing the quantitative data, it was noted that the reading comprehension scores as measured by the Accelerated Reader comprehension quiz did not differ significantly between response groups. This finding contradicted past studies that have suggested that blogging offered increased opportunities for critical thinking which may lead to increased comprehension (Pearson, Peterson & Rodriguez, 2003; Peterson & Taylor, 2012). As a result, comments related to critical thinking during the student interviews were of interest.

While discussing how long it took to become comfortable with the blog, most students reported that they became more engaged in the work as they learned how to navigate the site. Two students reported losing interest in blogging as time went on, however. Both felt that other group members disagreed with their point of view or critiqued their work more often as they progressed further in the novel and discussion. These comments suggested that some students began to develop a more in-depth or critical view of the literature responses as they became more familiar with the process. Therefore, critical thinking may have increased for some students in the blogging group as they progressed throughout the study.

Implications for Educators

Despite inconclusive evidence related to blogging and reading motivation, sense of classroom community, and reading comprehension, the participants in the study made overwhelmingly positive comments about the blogging experience. This positive response from students suggested that blogging, as a means of literature discussion, could be an effective instructional technique.

In relation to reading motivation, the participants reported an appreciation for the ease of use, the immediate feedback, and the increased access to the literature discussions supported in the blogging forum. The participants also reported feeling a sense of community with their blogging group members and acknowledged that this sort of connection was helpful to the learning process. They liked helping one another, gaining ideas from group members, and overcoming adversity to reach a common goal in the blogging forum. Some participants also suggested that critical thinking developed throughout the study. The students reported having “more of a variety of ideas” and said that “there are a bunch of ideas that you can put together to make a good answer” in the blogging forum. Therefore, blogging as a means of literature response is recommended in the classroom, as it affected student motivation, helped strengthen classroom community, and offered students increased opportunities for critical thinking.

To help alleviate frustration when introducing blogging in the classroom, it is advised that students be given the opportunity to become familiar and comfortable using the blog before being given any formal assignments. Modeling making blog posts and providing time for students to explore the blogging forum should help manage frustration and facilitate a positive learning experience. Explicitly teaching how to comment on blog posts is also recommended. It is suggested that commenting on posts is first modeled. Following the lesson, students should be given the opportunity to practice commenting appropriately on one another’s posts. This exercise could be done as a whole group and will give students a sense of comments that are considered valuable and helpful by the classmates and those that are not. In doing so, blogging interaction will be supported and encouraged, which may result in a stronger community of learners.

Finally, blogging for a variety of academic purposes is recommended. During the student interviews, participants expressed an interest in blogging for purposes other than literature response in school. While the literature response blog was a valuable teaching tool, increased blogging assignments would offer opportunities for students to become more comfortable with the blogging forum. While doing so, students may enjoy the benefits of increased engagement with the discussion topic, a strengthened sense of community with their peers, and improved critical thinking.

Recommendations for Future Research

The conflicting quantitative and qualitative results regarding blogging in response to literature and reading motivation, sense of classroom community, and reading comprehension suggest that further research is needed. To further understand how reading motivation, sense of classroom community, and reading comprehension are affected by blogging, it is suggested that a more in-depth qualitative study be conducted. In the current study, interviews were only conducted with a subset of the participants. Therefore, the qualitative results are based on a small sample size of fifteen. Interviewing a larger sample may provide more insight as to how reading motivation is affected as students blog as a form of literature response.

It would also be beneficial to conduct a study in which qualitative data were collected from the blog posts in the form of artifact review. Researchers could code the data based on Rovai's (2002) four main components of classroom community: spirit, trust, interaction, and common expectations related to learning to determine which element of community-building is most prevalent in the blogging process. In conducting an artifact review, researchers could also code data based on the five stages of developing learning communities presented by Stewart et al. (2006) to see how deep and how often the blogging group reaches the various stages of

community development. These stages include: introduction, identification, student reflection, involvement, and inquiry. Both studies would offer valuable insight as to how blogs support community building in the classroom.

Future research into blogging about literature and critical thinking is also suggested. To further understand how reading comprehension is affected by blogging in response to literature, it is recommended that another mixed-methods study be conducted. In the current study, comprehension scores were based on answers on a multiple-choice test. Therefore, evidence of critical thinking may not have been apparent in the scores since many questions were related to recall rather than application of knowledge. Having students respond to an open-ended prompt and then scoring responses using a rubric may provide more evidence related to critical thinking. It would also be beneficial to follow up with student interviews to gain more information about the understanding of the text developed through blogging.

Summary

The qualitative results of this study suggested that blogging in response to literature may have a positive impact on reading motivation, sense of classroom community, and reading comprehension. The results are inconclusive, however, as the qualitative findings contradict the quantitative data. As a result, further research about the benefits of blogging, in response to literature, is recommended.

It should be noted that while the quantitative results didn't suggest increased reading motivation, sense of classroom community, or comprehension for the blogging group, the same areas of interest did not increase for the traditional response group either. The qualitative portion of the study brought to light the benefits of blogging, suggesting that it is a valuable tool for literature response.

All but one of the students interviewed expressed interest in blogging in response to future reading assignments, while one interview group of eight students all expressed interest in expanding their blogging for other academic purposes. This level of interest expressed, along with overwhelmingly positive comments related to blogging, suggested that it is a valuable teaching tool in the intermediate grades. As one student stated, “Blogging helped me realize that you can work together and you don’t have to be all angry and not want to do it. You can work together and have more confidence in what you can do.” This may translate into learning more throughout the process.

The quantitative results of the study showed that there were no significant differences in reading motivation, sense of classroom community, or reading comprehension between the blogging and traditional groups. Likewise, there were no significant differences between reading motivation or sense of classroom community from the beginning of the study to the end of the study for either response group.

The teacher and student interviews, however, suggested that reading motivation may have been positively affected, as students took initiative to complete literature circle work outside of school even though it had not been assigned. Results from the interviews also suggested that a sense of classroom community was developed among all participants and that the sense of community among the blogging group members was particularly strong. This finding, along with the positive comments from the blogging participants, suggested that further studies related to blogging in response to literature may be of interest. Future in-depth, qualitative studies are recommended to further explore how reading motivation, sense of classroom community, and reading comprehension are influenced by blogging in response to literature in intermediate grade classrooms.

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Appendix A

Classroom Community Scale

Directions: Below, you will see a series of statements concerning our classroom. Read each statement carefully and place an X in the parentheses to the right of the statement that comes closest to indicate how you feel about the class. You may use a pencil or pen. There are no correct or incorrect responses.

Strongly agree (SA); Agree (A); Neutral (N); Disagree (D); Strongly disagree (SD)

- | | | | | | |
|---|------|-----|-----|-----|------|
| 1. I feel that students in this class care about each other | (SA) | (A) | (N) | (D) | (SD) |
| 2. I feel that I am encouraged to ask questions | (SA) | (A) | (N) | (D) | (SD) |
| 3. I feel connected to others in this class | (SA) | (A) | (N) | (D) | (SD) |
| 4. I feel that it is hard to get help when I have a question | (SA) | (A) | (N) | (D) | (SD) |
| 5. I do not feel a spirit of community | (SA) | (A) | (N) | (D) | (SD) |
| 6. I feel that I receive timely feedback | (SA) | (A) | (N) | (D) | (SD) |
| 7. I feel that this class is like a family | (SA) | (A) | (N) | (D) | (SD) |
| 8. I feel uneasy exposing gaps in my understanding | (SA) | (A) | (N) | (D) | (SD) |
| 9. I feel isolated in this class | (SA) | (A) | (N) | (D) | (SD) |
| 10. I feel reluctant to speak openly | (SA) | (A) | (N) | (D) | (SD) |
| 11. I trust others in this class | (SA) | (A) | (N) | (D) | (SD) |
| 12. I feel that this class results in only modest learning | (SA) | (A) | (N) | (D) | (SD) |
| 13. I feel that I can rely on others in this class | (SA) | (A) | (N) | (D) | (SD) |
| 14. I feel that other students do not help me learn | (SA) | (A) | (N) | (D) | (SD) |
| 15. I feel that members of this course depend on me | (SA) | (A) | (N) | (D) | (SD) |
| 16. I feel that I am given ample opportunities to learn | (SA) | (A) | (N) | (D) | (SD) |
| 17. I feel uncertain about others in this course | (SA) | (A) | (N) | (D) | (SD) |
| 18. I feel that my educational needs are not being met | (SA) | (A) | (N) | (D) | (SD) |
| 19. I feel confident that others will support me | (SA) | (A) | (N) | (D) | (SD) |
| 20. I feel that this class does not promote a desire to learn | (SA) | (A) | (N) | (D) | (SD) |

Appendix B

Interview Protocol

Teacher/Facilitator Interview Questions:

1. Describe the sense of classroom community developed in each of the two literature circle response groups?
2. Which to the two response groups (blogging and traditional) do you believe was most supportive of developing community in the classroom?
3. Considering your experience over the past six weeks, how would you describe the differences in learning between the blogging group and the traditional group in relation to literature response?
4. What was the most difficult for the blogging group? How does this compare to barriers you traditionally experience in the classroom?
5. Was there anything that went especially well or surprised you throughout the literature circle lessons?

Student Interview Questions:

1. What did you like best about working in the blogging group? What did you like the least?
2. How long did it take you to feel comfortable using the blog?
3. How long did it take you to feel comfortable giving and receiving feedback in the blogging forum?
4. Did your feelings about completing your work on the blog change over time?
5. What do you think community means?
6. Does it help you to learn when you feel a sense of community with students in your classroom?
7. Do you feel that you developed friendships with the students in the blogging group? How was this experience different from making friends at school?
8. What would you change if you were going to participate in another blogging group in the future?